

# ANTIBODIES FOR NEURO-RELATED DISEASES

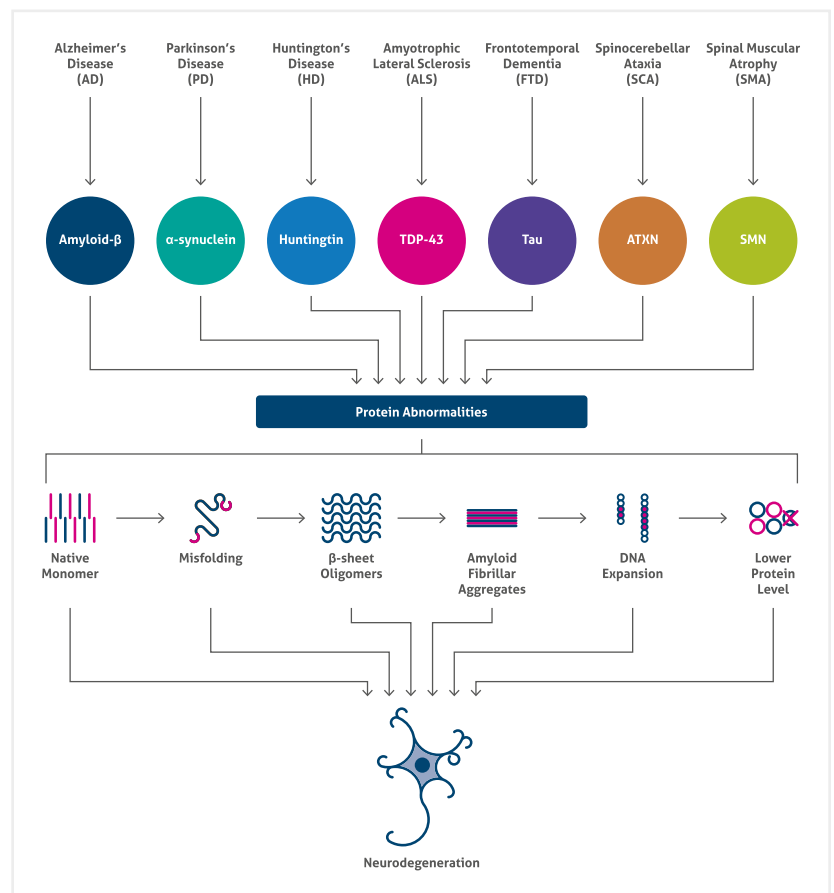
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## Introduction

Neurodegenerative diseases, such as Amyotrophic lateral sclerosis (ALS), Alzheimer's disease (AD), Frontotemporal dementia (FTD), Huntington's disease (HD), Parkinson's disease (PD), Spinocerebellar ataxia (SCA), and Spinal Muscular Atrophies (SMAs), are incurable and debilitating disorders.

With an increasingly aging global population, the economic, as well as human impact of these conditions is expected to increase unless reliable tools and care strategies can be developed. Proteintech's product range offers unprecedented scientific potential for neurodegenerative disease studies, which can help to further new therapeutic strategies.

## Protein Abnormalities In Neurodegenerative Diseases



# FOCUS ANTIBODIES

## TDP-43: Key Protein In Neurodegenerative Disorders

Focus Antibody  
TDP-43

Catalog Number  
10782-2-AP

Type  
Rabbit Polyclonal

Applications  
ChIP, CoIP, ELISA, FC, IF, IHC, IP, RIP, WB

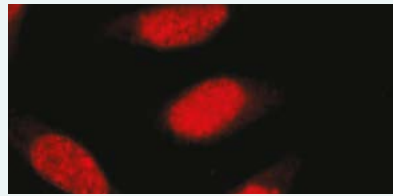
757 Publications

For over 10 years hyperphosphorylated, ubiquitinated, and/or cleaved forms of TAR DNA-binding protein 43 (TDP-43) protein have been known as abnormalities in FTD and ALS disorders.

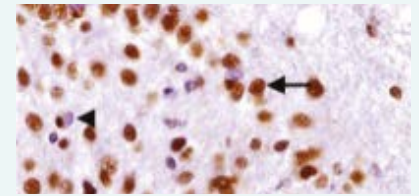
A higher number of neurodegenerative diseases associated with pathological aggregates of TDP-43 have led to its new designation; TDP-43 proteinopathy. TDP-43, encoded by the TARDBP gene, was

identified as a transcription factor involved in transcriptional regulation, mRNA splicing/translation/transport, miRNA biogenesis, and even nuclear body formation.

As an RNA-processing protein, TDP-43 has also been identified as a component of stress granules and translocates to cytoplasm from the nucleus during stress to maintain protein homeostasis.



Immunofluorescent analysis of HepG2 cells, using TARDBP antibody (10782-2-AP) at a 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



Formalin-fixed hippocampus section from ALS-dementia was stained with 10782-2-AP. Arrow denotes cells with normal nuclear staining; Arrow head denotes cells with cytoplasmic inclusions.

This image was kindly provided by Linda K. Kwong.

## Related Antibodies

Antibody Name	Catalog Number	Type	Applications
ALS2 (alsin)	13988-1-AP	Rabbit Poly	ELISA, IHC, WB
AP repeat	2 24493-1-AP	Rabbit Poly	ELISA
ANG (ALS9)	1 18302-1-AP	Rabbit Poly	ELISA, IHC, WB
ATXN2	2 21776-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
C9orf72	5 22637-1-AP	Rabbit Poly	ELISA, IHC, WB
C9orf72	66140-1-Ig	Mouse Mono	ELISA, IHC, WB
CCS/SOD4	22802-1-AP	Rabbit Poly	ELISA, IP, WB
CHMP2B	2 12527-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
CREST (SS18L1)	3 12439-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
CREST (SS18L1)	60314-1-Ig	Mouse Mono	ELISA, WB
DCTN1	55182-1-AP	Rabbit Poly	ELISA, IHC, WB
EWS	55191-1-AP	Rabbit Poly	ELISA, WB
FUS/TLS	29 11570-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
FUS/TLS	7 60160-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
GA repeat	2 24492-1-AP	Rabbit Poly	ELISA
GP repeat	4 24494-1-AP	Rabbit Poly	ELISA, IHC, WB
GR repeat	6 23978-1-AP	Rabbit Poly	ELISA, WB
hnRNPA1	4 11176-1-AP	Rabbit Poly	ELISA, IHC, WB

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## Related Antibodies

*Continued*

Antibody Name		Catalog Number	Type	Applications
hnRNPA2B1	5	14813-1-AP	Rabbit Poly	ELISA, IHC, WB
MATR3		12202-2-AP	Rabbit Poly	ELISA, IF, WB
OPTN	10	10837-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
OPTN		60293-1-Ig	Mouse Mono	ELISA, WB
PCDGF/GRN	5	18410-1-AP	Rabbit Poly	ELISA, IHC, WB
PCDGF/GRN		10053-1-AP	Rabbit Poly	ELISA, IHC, WB
PCDGF/GRN		25823-1-AP	Rabbit Poly	ELISA, WB
PFN1	3	11680-1-AP	Rabbit Poly	ELISA, IHC, WB
Phospho-TDP-43 (403/404)	1	66079-1-Ig	Mouse Mono	ELISA, WB
Phospho-TDP-43 (409/410)	5	22309-1-AP	Rabbit Poly	ELISA, IF, WB
PR repeat	5	23979-1-AP	Rabbit Poly	ELISA
PSEN	1	16163-1-AP	Rabbit Poly	ELISA, WB
SQSTM1(p62)	51	18420-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
SQSTM1/p62		55274-1-AP	Rabbit Poly	ELISA, IHC, WB
SOD1	14	10269-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
SOD2	9	24127-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
TAF15		24235-1-AP	Rabbit Poly	ELISA, IHC, WB
Tau	2	10274-1-AP	Rabbit Poly	ELISA, IHC, WB
TDP-43 (C-terminal)	50	12892-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TDP-43 (full length)		18280-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
TDP-43 (Human specific)	36	60019-2-Ig	Mouse Mono	ELISA, IF, IHC, WB
TMEM106B	2	20995-1-AP	Rabbit Poly	ELISA, IHC, WB
TMEM106B		60333-1-Ig	Mouse Mono	ELISA, WB
TNPO1/TRN1		20679-1-AP	Rabbit Poly	ELISA, WB
UBQLN2		23449-1-AP	Rabbit Poly	ELISA, IHC, WB
VAPB (ALS8)	6	14477-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
VAPB (ALS8)		66191-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
VCP	2	10736-1-AP	Rabbit Poly	ELISA, IHC, WB
VCP		60316-1-Ig	Mouse Mono	ELISA, IHC, WB

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## G3BP1: Indicator Of Stress Granules Pathophysiology

**Focus Antibody**  
**G3BP1**

**Catalog Number**  
**13057-2-AP**

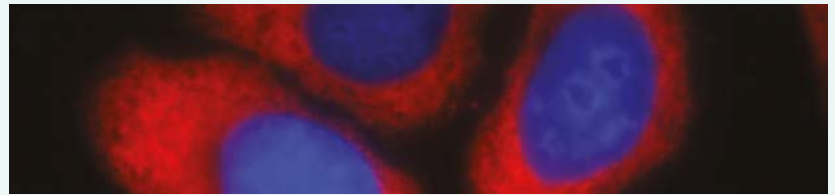
**Type**  
**Rabbit Polyclonal**

**Applications**  
**ELISA, FC, IF, IHC, IP, WB**

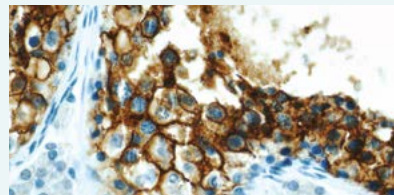
**15 Publications**

Stress granules (SGs) are protein-mRNA aggregates that are formed in response to environmental stress, resulting in translational inhibition. In many neurodegenerative diseases, the primary aggregating entities are RNA-binding proteins that are the core of nucleating factors for SGs, including TIA-1, TIAR, TTP and G3BP1.

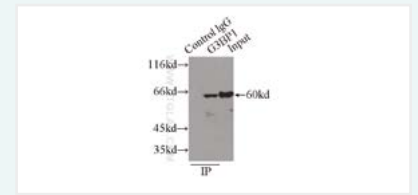
GAP SH3 binding protein 1 (G3BP1/ G3BP) works as an effector of SG assembly. SG biology plays an important role in the pathophysiology of TDP-43 in ALS and FTLN or AD. G3BP1 can be used as a great tool for SG studies.



Immunofluorescent analysis of Ethacrynic acid-treated HepG2 cells using G3BP1 antibody (13057-2-AP) at a dilution of 1:25 and Rhodamine-Goat anti-Rabbit IgG.



Immunohistochemistry of paraffin-embedded human testis slide using G3BP1 antibody (13057-2-AP) at a dilution of 1:50.



IP Result of anti-G3BP1 (IP: 13057-2-AP, 3ug; Detection: 13057-2-AP 1:1000) with HEK-293 cells lysate 2000ug.

## Related Antibodies

### Stress Granule Markers

Antibody Name	Catalog Number	Type	Applications
EIF3C	12733-1-AP	Rabbit Poly	ELISA, WB
EIF3D	<b>7</b> 10219-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
EIF3E	11352-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
EIF3E	10899-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
EIF3H	11310-1-AP	Rabbit Poly	ELISA, WB
EIF3I	<b>3</b> 11287-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
EIF3J	<b>1</b> 10439-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
EIF4A2	11280-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
EIF4B	<b>1</b> 17917-1-AP	Rabbit Poly	ELISA, IP, WB
EIF4E	<b>3</b> 11149-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
EIF4G	<b>3</b> 15704-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
G3PB1	<b>15</b> 13057-2-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
HuR	<b>10</b> 11910-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
PABP	10970-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TIA1	<b>5</b> 12133-2-AP	Rabbit Poly	ELISA, IP, WB

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## C9orf72 As Repeat Expansion In Neurodegenerative Disease

**Focus Antibody**  
**C9orf72**

**Catalog Number**  
**22637-1-AP**

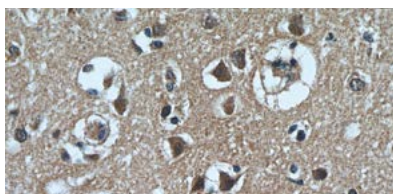
**Type**  
**Rabbit Polyclonal**

**Applications**  
**ELISA, IF, IHC, IP, WB**

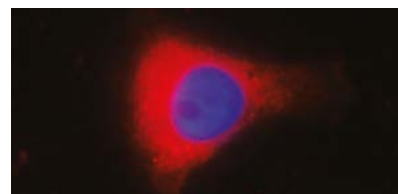
**5 Publications**

ALS is characterized by a loss of motor neurons, with 90% of ALS cases being sporadic and the other 10% having a family history; the C9orf72 HRE represents the most common genetic cause of both familial and sporadic ALS. FTD is characterized by degeneration of the frontal and temporal lobes of the brain and is the second-most common type of dementia in people younger than 65. FTD is similar to ALS, in that C9orf72 HRE is one of the most common genetic issues. Some researchers claim that the C9orf72 HRE may also contribute to Alzheimer's and Huntington's diseases.

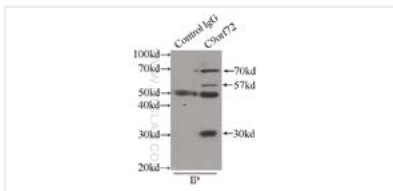
C9orf72 has a domain with polymorphic hexanucleotide repeat (GGGGCC). The C9orf72-hexanucleotide repeat expansions have been identified as genetic markers in ALS and FTD. The C9orf72 expansions may indicate ALS/FTD disorders. C9orf72 has two isoforms with MW 54–60 kDa and 25–30 kDa. Normal human C9orf72 alleles have 2 to 25 intronic GGGGCC repeats. The expanded repeats associated with ALS/FTD are thought to have variable lengths, ranging from ten to thousands of hexanucleotide repeats.



Immunohistochemical of paraffin-embedded human brain using C9orf72 antibody (22637-1-AP) at a dilution of 1:50 (40x objective).



Immunofluorescent analysis of SH-SY5Y cells using C9orf72 antibody (22637-1-AP) at a dilution of 1:25 and Rhodamine-Goat anti-Rabbit IgG.



IP Result of anti-C9orf72 (IP: 22637-1-AP, 3ug; Detection: 22637-1-AP 1:300) with SH-SY5Y cells lysate 2000ug.



SH-SY5Y cells were subjected to SDS PAGE followed by western blot with C9orf72 antibody (22637-1-AP) at a dilution of 1:300.

## Related Antibodies

Antibody Name	Catalog Number	Type	Applications
AP repeat	<b>2</b> 24493-1-AP	Rabbit Poly	ELISA
C9orf72	25757-1-AP	Rabbit Poly	ELISA, IHC, WB
C9orf72	66140-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
GA repeat	<b>2</b> 24492-1-AP	Rabbit Poly	ELISA
GP repeat	<b>4</b> 24494-1-AP	Rabbit Poly	ELISA, IHC, WB
GR repeat	<b>6</b> 23978-1-AP	Rabbit Poly	ELISA, WB
PR repeat	<b>5</b> 23979-1-AP	Rabbit Poly	ELISA

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# NEURO-RELATED DISEASES ANTIBODY LIST

## Alzheimer's Disease (AD)

Nowadays AD alone accounts for between 60 and 70% of all dementia cases. It is a chronic disease that within a time destroys neurons and results in cognitive disabilities. AD mainly relates to senile plaques and neurofibrillary tangles (NFTs), where amyloid beta is a major component of these plaques.

From a genetic perspective, four genes are deeply involved in AD: amyloid precursor protein (APP), presenilin 1 (PS1), presenilin2 (PS2), and apolipoprotein E (ApoE). Mutations in APP and PS proteins provoke an increase of amyloid-beta peptides, mostly the amyloidogenic form – amyloid-beta 42. The correlation between APOE and AD is significant; however, APOE genotyping is neither fully specific nor sensitive.

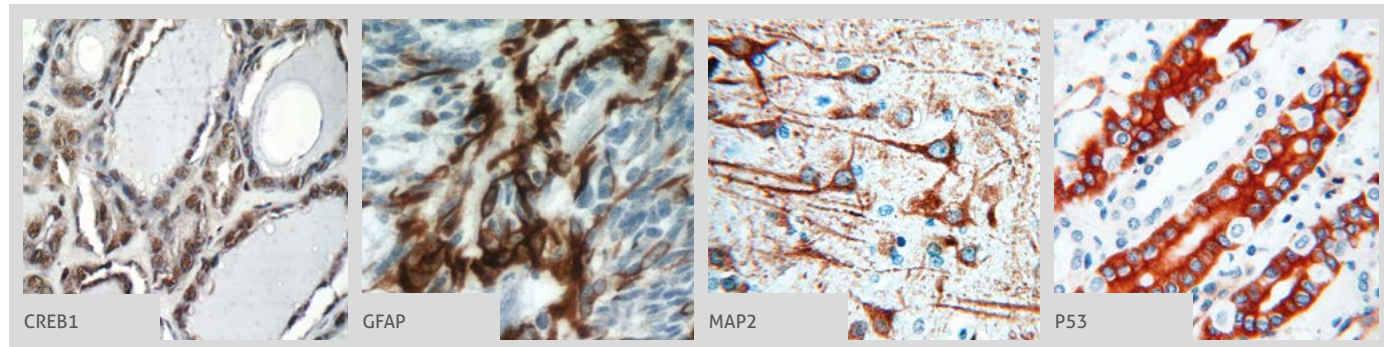
## Related Antibodies

Antibody Name	Cat. No.	Type	Applications
14-3-3 epsilon	<b>1</b> 11648-2-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
ADAM17	24620-1-AP	Rabbit Poly	ELISA, IHC, WB
ADAM17-Specific	20259-1-AP	Rabbit Poly	ELISA, IHC, WB
Adenosine receptor 1	<b>1</b> 55026-1-AP	Rabbit Poly	ELISA, IHC, WB
Adenosine receptor 1	20332-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
AIF	<b>7</b> 17984-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
Amyloid beta (A4) precursor protein	60342-1-Ig	Mouse Mono	ELISA, IHC, WB
AP repeat	<b>2</b> 24493-1-AP	Rabbit Poly	ELISA
APH1A	11643-1-AP	Rabbit Poly	ELISA, IP, WB
ATIC	10726-1-AP	Rabbit Poly	ELISA, IF, WB
BACE1	<b>2</b> 12807-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
BACE2	16321-1-AP	Rabbit Poly	ELISA, WB
Calbindin	14479-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
CALHM1	22042-1-AP	Rabbit Poly	ELISA, IHC, WB
CCP1	<b>5</b> 14067-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB

Antibody Name	Cat. No.	Type	Applications
CCR5	<b>1</b> 17476-1-AP	Rabbit Poly	ELISA, FC, WB
CCT4	<b>1</b> 21524-1-AP	Rabbit Poly	ELISA, IHC, WB
CD33	<b>1</b> 17425-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
CDK1	<b>1</b> 10762-1-AP	Rabbit Poly	ELISA, WB
CDK1-Specific	<b>14</b> 19532-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Clusterin	<b>1</b> 12289-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
Clusterin	66109-1-Ig	Rabbit Poly	ELISA, IHC, WB
CREB1	<b>4</b> 12208-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
EPHA1	65024-1-Ig	Mouse Mono	ELISA, IHC, WB
EPHA1-specific	18698-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
EPHA1-specific	60155-2-Ig	Mouse Mono	ELISA, WB
ERK1/2	<b>20</b> 16443-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
FABP7	<b>1</b> 51010-1-AP	Rabbit Poly	ELISA, IHC, WB
FABP7-Specific	14836-1-AP	Rabbit Poly	ELISA, IHC, WB
GA repeat	<b>2</b> 24492-1-AP	Rabbit Poly	ELISA
GFAP	<b>20</b> 16825-1-AP	Rabbit Poly	ELISA, IHC, WB



More validation images available on our website.

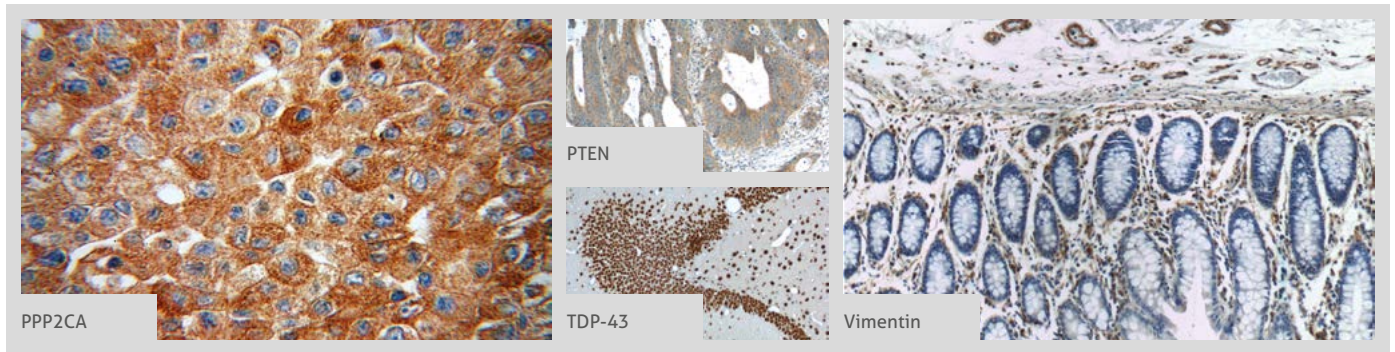


Antibody Name	Cat. No.	Type	Applications
GFAP	<b>6</b> 60190-1-Ig	Mouse Mono	ELISA, IHC, IP, WB
GFAP	23935-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
GLUT1	<b>10</b> 21829-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
GLUT1	66290-1-Ig	Mouse Mono	ELISA, FC, IHC, WB
GLUT3	<b>5</b> 20403-1-AP	Rabbit Poly	ELISA, IHC, WB
GLUT4	<b>2</b> 21048-1-AP	Rabbit Poly	ELISA, IHC
Glutamate receptor 2	<b>2</b> 11994-1-AP	Rabbit Poly	ELISA, FC, IP, WB
Glutamate receptor 2	<b>2</b> 11994-1-AP	Rabbit Poly	ELISA, FC, IP, WB
glutamine synthetase	<b>4</b> 11037-2-AP	Rabbit Poly	ELISA, FC, IHC, WB
glutamine synthetase	66323-1-Ig	Mouse Mono	ELISA, IHC, WB
GP repeat	<b>4</b> 24494-1-AP	Rabbit Poly	ELISA, IHC, WB
GR repeat	<b>6</b> 23978-1-AP	Rabbit Poly	ELISA, WB
GRP94	<b>6</b> 14700-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
GRP94	60012-1-Ig	Mouse Mono	ELISA, FC, IF, WB
GSK3 A	13419-1-AP	Rabbit Poly	ELISA, IHC, WB
GSK3 B	<b>25</b> 22104-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
GSK3 B	<b>1</b> 15113-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
GSK3 B	<b>1</b> 51065-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
GSK3 B	24198-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
GSK3A	13419-1-AP	Rabbit Poly	ELISA, IHC, WB
GSK3B	<b>23</b> 22104-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
GSK3B	24198-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
HIF1a	<b>22</b> 20960-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
HSP90AB1	<b>1</b> 11405-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
IDE	<b>2</b> 21728-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
IFNGR1	<b>1</b> 10808-1-AP	Rabbit Poly	ELISA, FC, IHC, IP, WB
IFNGR2	10266-1-AP	Rabbit Poly	ELISA, FC, WB
Interferon gamma	<b>13</b> 15365-1-AP	Rabbit Poly	ELISA, IHC, WB

Antibody Name	Cat. No.	Type	Applications
JNK	<b>16</b> 51151-1-AP	Rabbit Poly	ELISA, IF, IP, WB
JNK	<b>3</b> 10023-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
JNK	<b>2</b> 24164-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
MAP2	<b>16</b> 17490-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
MAP2	<b>15</b> 17490-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
MAPK7	<b>1</b> 10036-2-AP	Rabbit Poly	ELISA, WB
MAPK7	11164-1-AP	Rabbit Poly	ELISA, WB
MARK2	<b>1</b> 15492-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
MARK3	12932-1-AP	Rabbit Poly	ELISA, IP, WB
MARK4	20174-1-AP	Rabbit Poly	ELISA, IHC, WB
MFN1	<b>7</b> 13798-1-AP	Rabbit Poly	ELISA, IHC, WB
MFN2	<b>9</b> 12186-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
NALP3	<b>8</b> 19771-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
N-CADHERIN	<b>23</b> 13769-1-AP	Rabbit Poly	ELISA, IHC, WB
NFKB1	23576-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
NFKB1, p105, p50-Specific	15506-1-AP	Rabbit Poly	ELISA, WB
NF-κB	<b>12</b> 14220-1-AP	Rabbit Poly	ELISA, IF, IP, WB
NGB	13499-1-AP	Rabbit Poly	ELISA, IHC, WB
Nicastrin	14071-1-AP	Rabbit Poly	ELISA, IF, WB
NMDAR2A	<b>2</b> 19953-1-AP	Rabbit Poly	ELISA, FC, IF, WB
Notch1	<b>5</b> 10062-2-AP	Rabbit Poly	ELISA, IP, WB
NOTCH1	<b>3</b> 20687-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
NR1H2	<b>6</b> 14278-1-AP	Rabbit Poly	ELISA, WB
NR1H2	60345-1-Ig	Mouse Mono	ELISA, WB
NR1H3	<b>19</b> 14351-1-AP	Rabbit Poly	ELISA, WB
NR1H3	60134-1-Ig	Mouse Mono	ELISA, IF, WB
NR2B	<b>2</b> 19954-1-AP	Rabbit Poly	ELISA, FC, IF, WB
NR2B	<b>2</b> 21920-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
NRF1/nuclear respiratory factor 1	<b>3</b> 12482-1-AP	Rabbit Poly	ELISA, IP, WB
P53	<b>62</b> 10442-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB

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More validation images available on our website.



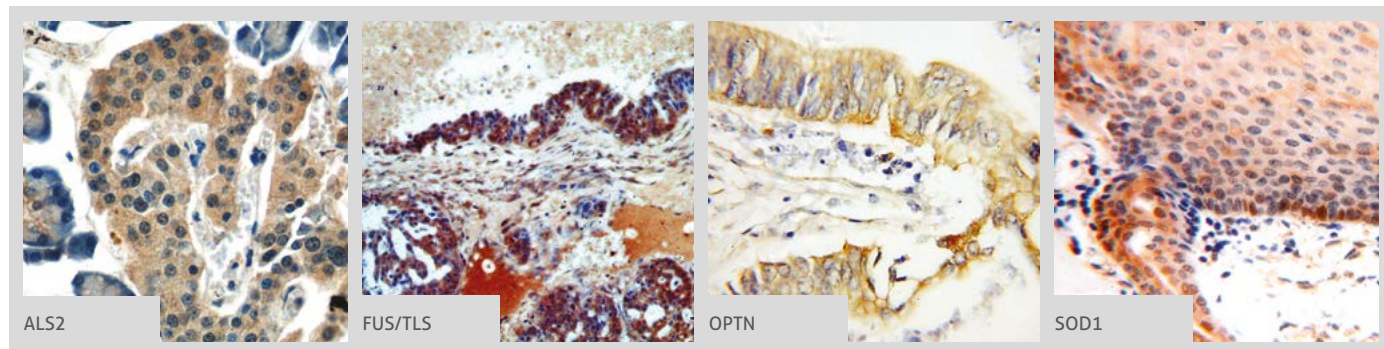
Antibody Name	Cat. No.	Type	Applications
P53	60283-1-Ig	Mouse Mono	ELISA, IHC, IP, WB
p75NTR	<b>1</b> 55014-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
phospho (403/404)-TDP43	<b>1</b> 66079-1-Ig	Mouse Mono	ELISA, WB
phospho (409/410)-TDP43	<b>4</b> 22309-1-AP	Rabbit Poly	ELISA, WB
phospho (409/410)-TDP43	66318-1-Ig	Mouse Mono	ELISA, WB
PPAR gamma	<b>22</b> 16643-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
PPAR gamma	60127-1-Ig	Mouse Mono	ELISA, IHC, WB
PPARA	<b>12</b> 15540-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
PPP2CA	<b>3</b> 13482-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
PR repeat	<b>5</b> 23979-1-AP	Rabbit Poly	ELISA
Presenilin -1-Specific	<b>1</b> 16163-1-AP	Rabbit Poly	ELISA, IP, WB
PSD95	<b>2</b> 20665-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
PSEN1	20434-1-AP	Rabbit Poly	ELISA, IF
PTEN	<b>9</b> 22034-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PTEN	<b>5</b> 60300-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
PTP1B	<b>1</b> 11334-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
S100B	<b>3</b> 15146-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
SAP18	13841-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
SET	<b>3</b> 55201-1-AP	Rabbit Poly	ELISA, IHC, WB
SFPO	<b>2</b> 15585-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
SIRP BETA 1	<b>2</b> 11811-1-AP	Rabbit Poly	ELISA, IHC, WB
SIRT1	<b>19</b> 13161-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
SIRT1	60303-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB

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Antibody Name	Cat. No.	Type	Applications
SNAP25	14903-1-AP	Rabbit Poly	ELISA, IF, IP, WB
SNAP25	60159-1-Ig	Mouse Mono	ELISA, IF, IP, WB
SSBP1	<b>2</b> 12212-1-AP	Rabbit Poly	ELISA, WB
STXB3	<b>1</b> 13764-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
SYNCRIP	14024-1-AP	Rabbit Poly	ELISA, IP, WB
TAU	<b>2</b> 10274-1-AP	Rabbit Poly	ELISA, IHC, WB
TDP-43	<b>757</b> 10782-2-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TDP-43 (C-terminal)	<b>48</b> 12892-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TDP-43 (full length)	18280-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TDP-43 (human specific)	<b>35</b> 60019-2-Ig	Mouse Mono	ELISA, FC, IHC, IP, WB
TFAM	<b>7</b> 19998-1-AP	Rabbit Poly	ELISA, IHC, WB
TFAM	22586-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
TGF-beta 1	<b>21</b> 18978-1-AP	Rabbit Poly	ELISA, IHC, WB
TLR4	<b>13</b> 19811-1-AP	Rabbit Poly	ELISA, IHC, WB
TLR4	66350-1-Ig	Mouse Mono	ELISA, IHC, WB
TNF alpha	<b>9</b> 60291-1-Ig	Mouse Mono	ELISA, IHC, WB
TNF-alpha	<b>10</b> 17590-1-AP	Rabbit Poly	ELISA, IHC
VAMP2	<b>1</b> 10135-1-AP	Rabbit Poly	ELISA, IHC, WB
VGLUT1	55491-1-AP	Rabbit Poly	ELISA, FC, IHC
VGLUT2	25261-1-AP	Rabbit Poly	ELISA, WB
Vimentin	<b>65</b> 10366-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
Vimentin	<b>2</b> 60330-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
Vimentin	22031-1-AP	Rabbit Poly	ELISA, WB
Visfatin	<b>1</b> 11776-1-AP	Rabbit Poly	ELISA, IHC, IP, WB



More validation images available on our website.



## Amyotrophic Lateral Sclerosis (ALS)

ALS (also known as Lou Gehrig’s disease) is a common adult-onset neuropathological, genetic disorder. Hand and leg weakness, loss of ability to initiate/control movements, and also slurred speech are typical symptoms of ALS. ALS is mostly related to the loss of motor neurons in the brain and spinal cord, and also atrophy of the frontal and temporal lobes. Pathogenic mutations are present in TAR DNA-binding protein 43 (TARDBP/ TDP-43), fused in sarcoma (FUS), ubiquilin2 (UBQLN2), SOD1, and also in the non-coding region of C9orf72. Recently, ALS and Frontotemporal Dementia (FTD) have been classified as belonging to the same family spectrum diseases.

### Related Antibodies

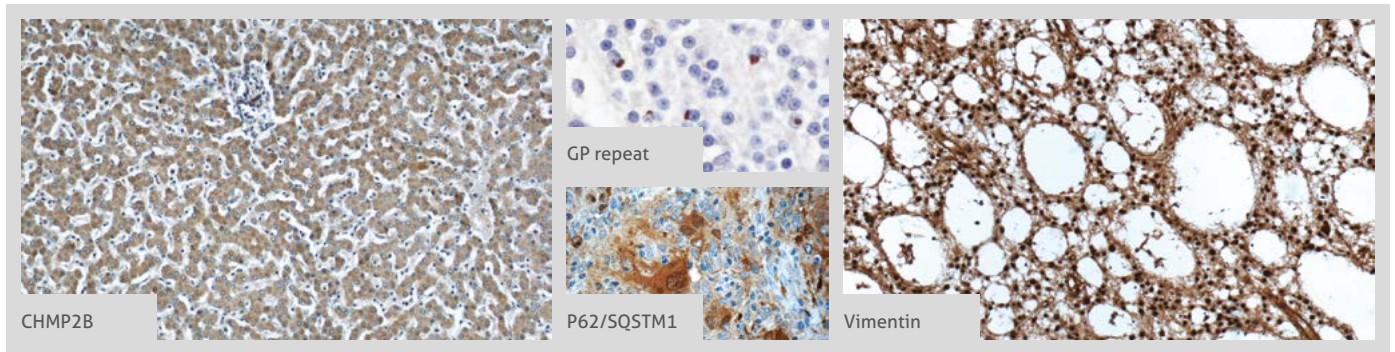
Antibody Name	Cat. No.	Type	Applications
ALS2	13998-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
Angiogenin	18302-1-AP	Rabbit Poly	ELISA, IHC, WB
AP repeat	24493-1-AP	Rabbit Poly	ELISA
Ataxin 2	21776-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
C9orf72	22637-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
FUS/TLS	11570-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
FUS/TLS	60160-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
GA repeat	24492-1-AP	Rabbit Poly	ELISA
GFAP	16825-1-AP	Rabbit Poly	ELISA, IHC, WB
GFAP	60190-1-Ig	Mouse Mono	ELISA, IHC, IP, WB
GFAP	23935-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
GP repeat	24494-1-AP	Rabbit Poly	ELISA, IHC, WB
GR repeat	23978-1-AP	Rabbit Poly	ELISA, WB
OPTN	10837-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
OPTN	60293-1-Ig	Mouse Mono	ELISA, WB
p150 glued	55182-1-AP	Rabbit Poly	ELISA, IF, IHC, WB

Antibody Name	Cat. No.	Type	Applications
P62/SQSTM1	18420-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
P62/SQSTM1	55274-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
P62/SQSTM1	66184-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
PR repeat	23979-1-AP	Rabbit Poly	ELISA
Profilin 1	11680-1-AP	Rabbit Poly	ELISA, IHC, WB
PTEN	22034-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PTEN	60300-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
S100B	15146-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
SOD1	10269-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
VAPB	14477-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
VAPB	66191-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
VCP	10736-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
VCP	60316-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
VGLUT1	55491-1-AP	Rabbit Poly	ELISA, FC, IHC
VGLUT2	25261-1-AP	Rabbit Poly	ELISA, WB

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## Frontotemporal Dementia (FTD)

FTD is a disease caused by progressive nerve cell loss. The majority of cases have brain atrophy in the frontal and/or temporal lobes. FTD is known as young-onset dementia and is characterized by behavioral abnormalities including decline in cognitive, motor, and language function. Most common FTD mutations are related to the TARDBP/TDP-43 protein, TAU pathology, or the fused in sarcoma (FUS) gene.

### Related Antibodies

Antibody Name	Cat. No.	Type	Applications
AP repeat	<b>2</b> 24493-1-AP	Rabbit Poly	ELISA
C9orf72	<b>5</b> 22637-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
C9orf72	25757-1-AP	Rabbit Poly	ELISA, IHC, WB
C9orf72	66140-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
CHMP2B	<b>2</b> 12527-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
FUS/TLS	<b>28</b> 11570-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
FUS/TLS	<b>6</b> 60160-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
GA repeat	<b>2</b> 24492-1-AP	Rabbit Poly	ELISA
GP repeat	<b>4</b> 24494-1-AP	Rabbit Poly	ELISA, IHC, WB
GR repeat	<b>6</b> 23978-1-AP	Rabbit Poly	ELISA, WB
Granulin	<b>5</b> 18410-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
Granulin	<b>1</b> 10053-1-AP	Rabbit Poly	ELISA, IHC, WB
GRN1/G	25823-1-AP	Rabbit Poly	ELISA, WB
P62/SQSTM1	<b>51</b> 18420-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
P62/SQSTM1	55274-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
P62/SQSTM1	<b>2</b> 66184-1-Ig	Mouse Mono	ELISA, IF, IHC, WB

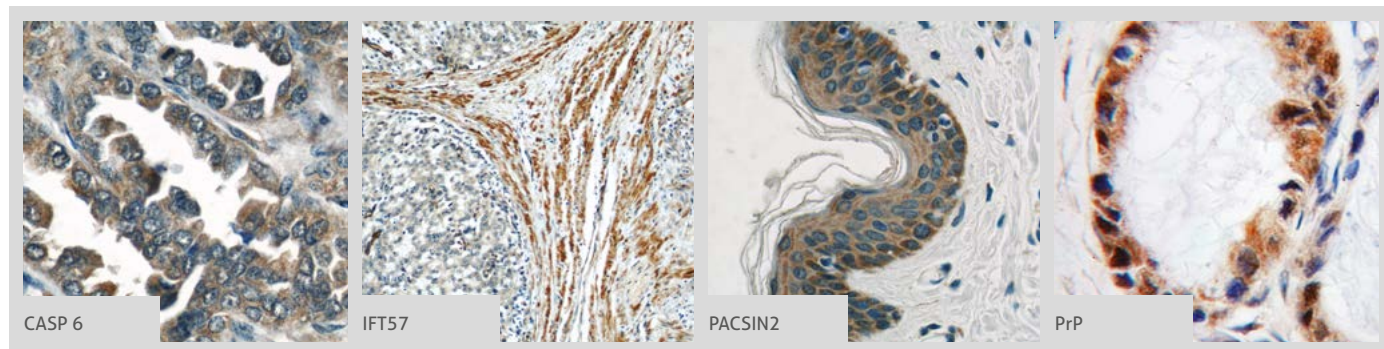
Antibody Name	Cat. No.	Type	Applications
phospho (403/404)-TDP43	<b>1</b> 66079-1-Ig	Mouse Mono	ELISA, WB
phospho (409/410)-TDP43	<b>4</b> 22309-1-AP	Rabbit Poly	ELISA, WB
phospho (409/410)-TDP43	66318-1-Ig	Mouse Mono	ELISA, WB
PR repeat	<b>5</b> 23979-1-AP	Rabbit Poly	ELISA
TAU	<b>2</b> 10274-1-AP	Rabbit Poly	ELISA, IHC, WB
TDP-43	<b>757</b> 10782-2-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TDP-43 (C-terminal)	<b>48</b> 12892-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TDP-43 (full length)	18280-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TDP-43 (human specific)	<b>35</b> 60019-2-Ig	Mouse Mono	ELISA, FC, IHC, IP, WB
TMEM106B	<b>2</b> 20995-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TMEM106B	60333-1-Ig	Mouse Mono	ELISA, WB
Transportin-1	20679-1-AP	Rabbit Poly	ELISA, WB
VCP	<b>2</b> 10736-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
VCP	60316-1-Ig	Mouse Mono	ELISA, IF, IHC, WB

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## Huntington's Disease (HD)

HD is a genetic autosomal dominant neurodegenerative disorder caused by the expansion of a CAG repeat located within the huntingtin gene (HTT). HTT mutation causes abnormal protein interactions or aggregation of various proteins, leading to neurodegeneration. For example, transcription factors TBP and SIN3A form complexes with the mutated huntingtin gene that suppress gene transcription. Patients who suffer HD display irregular, involuntary movements (Chorea), short-term memory loss, and changes in their behavior, which eventually progress to dementia. Initial symptoms can appear relatively early, between the ages of 35 and 45.

### Related Antibodies

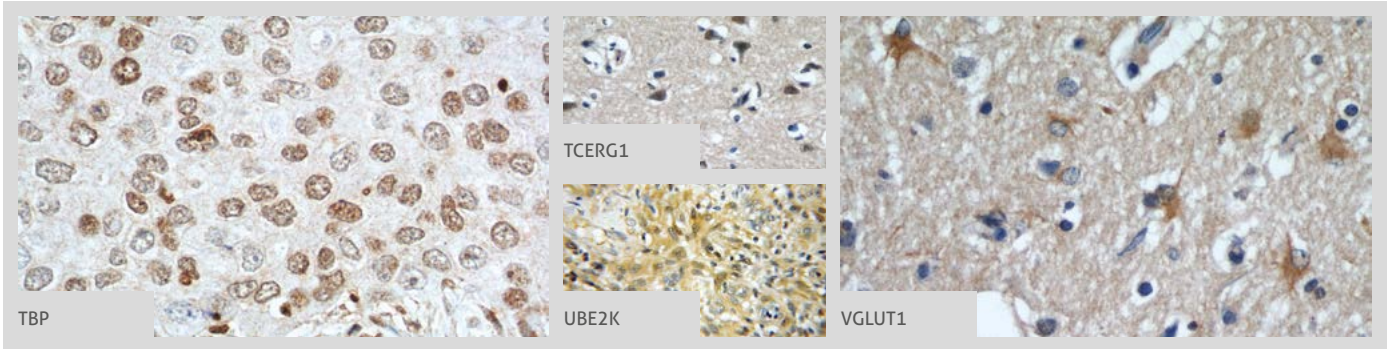
Antibody Name	Cat. No.	Type	Applications
Adenosine receptor 1	<b>1</b> 55026-1-AP	Rabbit Poly	ELISA, IHC, WB
Adenosine receptor 1	20332-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
BDNF	66292-1-Ig	Mouse Mono	ELISA, IF, WB
BDNF	<b>5</b> 25699-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
CASP 6	<b>1</b> 10198-1-AP	Rabbit Poly	ELISA, IHC, WB
dopa beta hydroxylase	10777-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
dopa decarboxylase	<b>2</b> 10166-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
DRD1	<b>2</b> 17934-1-AP	Rabbit Poly	ELISA, WB
DRD2	<b>1</b> 55084-1-AP	Rabbit Poly	ELISA, IP, WB
DRD2	<b>1</b> 55084-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
DRD5	<b>3</b> 20310-1-AP	Rabbit Poly	ELISA, FC, WB
EIF2AK2, PKR	<b>1</b> 18244-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
GRIK2	13597-1-AP	Rabbit Poly	ELISA, FC, WB
HIP1	22231-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
HIP14; ZDHHC17	15465-1-AP	Rabbit Poly	ELISA, IHC, WB
HIP1R	16814-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
HIP1-Specific	19688-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
HSP27	<b>10</b> 18284-1-AP	Rabbit Poly	ELISA, IF, WB
HSPB2	21755-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
IFT57	<b>10</b> 11083-1-AP	Rabbit Poly	ELISA, IHC, IP, WB

Antibody Name	Cat. No.	Type	Applications
IGF1A-Specific	<b>6</b> 20214-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
IGF1B-Specific	20215-1-AP	Rabbit Poly	ELISA, IHC, WB
ITPR1-specific	19962-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
KALRN	19740-1-AP	Rabbit Poly	ELISA, WB
NMDAR2A	<b>2</b> 19953-1-AP	Rabbit Poly	ELISA, FC, IF, WB
NR2B	<b>2</b> 19954-1-AP	Rabbit Poly	ELISA, FC, IF, WB
NR2B	<b>2</b> 21920-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
OPTN	<b>8</b> 10837-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
OPTN	60293-1-Ig	Mouse Mono	ELISA, WB
OPTN	Biotin-60293	Mouse Mono	ELISA, WB
PACSIN1	13219-1-AP	Rabbit Poly	ELISA, IF, WB
PACSIN2	<b>2</b> 10518-2-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
PACSIN3	10639-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
PAK1	21401-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
PAK1	51137-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PrP	<b>12555-1-AP</b>	Rabbit Poly	ELISA, FC, IHC, IP, WB
PRPF40A	17392-1-AP	Rabbit Poly	ELISA, IP, WB
PRPF40B	16929-1-AP	Rabbit Poly	ELISA, IF, IP, WB
RNF2	<b>1</b> 16031-1-AP	Rabbit Poly	ELISA, IP, WB
SIAH1	13886-1-AP	Rabbit Poly	ELISA, WB
TBP	<b>8</b> 22006-1-AP	Rabbit Poly	ELISA, IP, WB

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Antibody Name	Cat. No.	Type	Applications
TBP	1 66166-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
TBP	22246-1-AP	Rabbit Poly	ELISA, IF, WB
TCERG1	2 21858-1-AP	Rabbit Poly	ELISA, IHC, WB
TrkB	13129-1-AP	Rabbit Poly	ELISA, IHC, IP, WB

Antibody Name	Cat. No.	Type	Applications
TrkB	13129-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
UBE2K	11834-3-AP	Rabbit Poly	ELISA, IHC, WB
VGLUT1	55491-1-AP	Rabbit Poly	ELISA, FC, IHC
VGLUT2	25261-1-AP	Rabbit Poly	ELISA, WB

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## Parkinson's Disease (PD)

PD is estimated to affect about 2% of all individuals over 65 years. Resting tremor, cognitive impairment, and neurobehavioral disorders such as depression and anxiety are the main features of the disease.

$\alpha$ -Synuclein, a presynaptic neuronal protein, is central to the Lewy body pathology of PD. The cardinal motor symptoms are linked to the death of dopaminergic neurons in the substantia nigra, which is a primary reason for PD. Cell loss in the substantia nigra affects the ventral component of the pars compacta. This aspect is reflected in up to 70% cell death at the end stage of the disease when compared with a healthy individual. Also, mitochondrial dysfunction and reactive oxygen species (ROS) are involved in the accumulation of misfolded proteins, which negatively influence dopaminergic neurons.

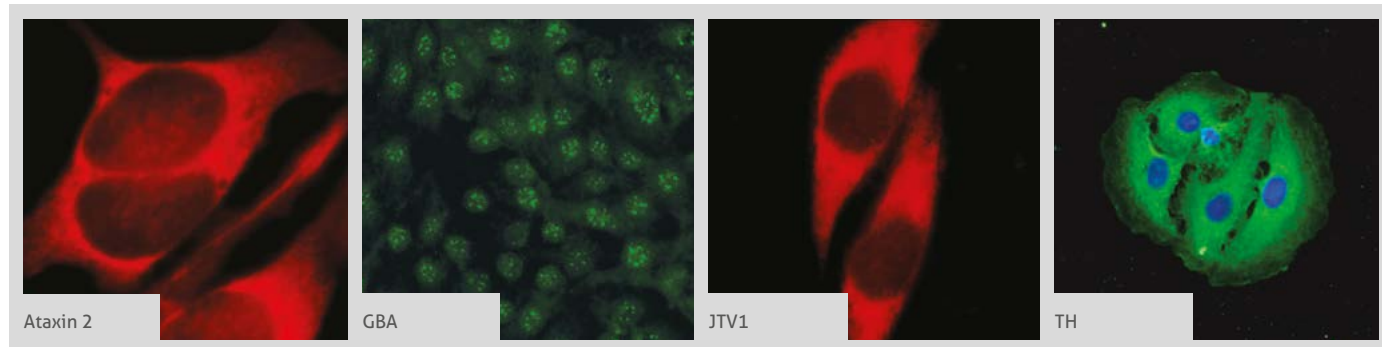
## Related Antibodies

Antibody Name	Cat. No.	Type	Applications
acetylated Tubulin (Lys40)	2 66200-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
alpha Tubulin	1 14555-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
alpha-synuclein	5 10842-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Ataxin 2	2 21776-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
CPLX1	3 10246-2-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
dopa beta hydroxylase	10777-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
dopa decarboxylase	2 10166-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
DRD1	2 17934-1-AP	Rabbit Poly	ELISA, WB
DRD2	1 55084-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
DRD5	3 20310-1-AP	Rabbit Poly	ELISA, FC, WB
EIF4G1	3 15704-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
FBX07	1 10696-1-AP	Rabbit Poly	ELISA, IHC, IP, WB

Antibody Name	Cat. No.	Type	Applications
GAK	12147-1-AP	Rabbit Poly	ELISA, WB
GATA1	2 60011-1-Ig	Mouse Mono	ELISA, WB
GATA2	2 11103-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
GBA	20622-1-AP	Rabbit Poly	ELISA, IF, IHC
GFAP	20 16825-1-AP	Rabbit Poly	ELISA, IHC, WB
GFAP	6 60190-1-Ig	Mouse Mono	ELISA, IHC, IP, WB
GFAP	23935-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
GNAS	1 10150-2-AP	Rabbit Poly	ELISA, IHC, IP, WB
GPNMB	1 20338-1-AP	Rabbit Poly	ELISA, IHC, WB
GPR37/Pael-R	2 14820-1-AP	Rabbit Poly	ELISA, WB
HIP1R	16814-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
HLA-DRA	17221-1-AP	Rabbit Poly	ELISA, IHC, WB

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Antibody Name	Cat. No.	Type	Applications
HLA-DRB5	21702-1-AP	Rabbit Poly	ELISA, IHC, WB
HTRA2	2 15775-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
JTV1	9 10424-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
LAMP3	2 12632-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
MCCC1	14861-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
Myelin basic protein	10458-1-AP	Rabbit Poly	ELISA, IHC, WB
NDUFV1	4 11238-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
NESP55, GNAS	66253-1-Ig	Mouse Mono	ELISA, WB
Nurr1/NR4A2	2 10975-2-AP	Rabbit Poly	ELISA, IHC
PARK2	1 14060-1-AP	Rabbit Poly	ELISA, IF, WB
PARK7, DJ-1	3 11681-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
PINK1	1 23274-1-AP	Rabbit Poly	ELISA, IHC, WB
PTEN	9 22034-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PTEN	5 60300-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
RKIP	1 10575-1-AP	Rabbit Poly	ELISA, IHC, WB
SNCB	10498-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
SPR	16822-1-AP	Rabbit Poly	ELISA, IF, IP, WB
SREBF1	12 14088-1-AP	Rabbit Poly	ELISA, IF, IP, WB
STBD1	3 11842-1-AP	Rabbit Poly	ELISA, IP, WB
STMN2	8 10586-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
Synaptotagmin-11	12031-1-AP	Rabbit Poly	ELISA, WB

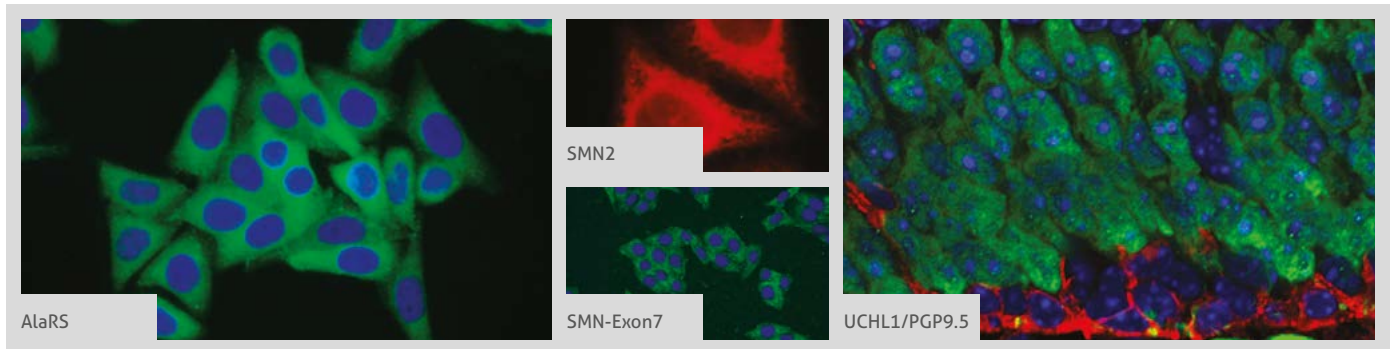
Antibody Name	Cat. No.	Type	Applications
TAU	2 10274-1-AP	Rabbit Poly	ELISA, IHC, WB
TFAM	7 19998-1-AP	Rabbit Poly	ELISA, IHC, WB
TFAM	23996-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TH	25859-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TH	66334-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
TOM 5	25607-1-AP	Rabbit Poly	ELISA, WB
TOM 6	16689-1-AP	Rabbit Poly	ELISA, WB
TOM 7	15071-1-AP	Rabbit Poly	ELISA, IHC, WB
TOM20	22 11802-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TOM22	1 11278-1-AP	Rabbit Poly	ELISA, IHC, WB
TOM40	2 18409-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
TOM70	10 14528-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
UCHL1	66230-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
UCHL1/PGP9.5	3 14730-1-AP	Rabbit Poly	ELISA, IF, IP, WB
VCP	2 10736-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
VCP	60316-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
VGLUT1	55491-1-AP	Rabbit Poly	ELISA, FC, IHC
VGLUT2	25261-1-AP	Rabbit Poly	ELISA, WB
VMAT2	1 20873-1-AP	Rabbit Poly	ELISA, WB
VPS35	2 10236-1-AP	Rabbit Poly	ELISA, IF, IP, WB
ZNF746	24543-1-AP	Rabbit Poly	ELISA, IHC, WB

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## Spinal Muscular Atrophy (SMA)

SMA is one of the most frequent autosomal recessive genetic disorders in childhood. It affects muscle movement through the loss of motor neuron function in the spinal cord and brainstem. The main reason for this is a deletion or mutation in the SMN1 gene. This leads to lower levels of functional SMN protein. The SMN1 protein plays a crucial role in the maintenance of motor neurons and further nerve impulses that flow between the brain and muscles. As a consequence, SMA patients suffer progressive paralysis, leading to weakness and impaired movement.

### Related Antibodies

Antibody Name	Cat. No.	Type	Applications
Alars	17394-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
GARS	15831-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
GTF2H2	16005-1-AP	Rabbit Poly	ELISA, WB
PFN2	60094-2-Ig	Mouse Mono	ELISA, IHC, WB
Sam68	10222-1-AP	Rabbit Poly	ELISA, FC, IHC, IP, WB
SIP1	21672-1-AP	Rabbit Poly	ELISA, IP, WB
SMN	11708-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
SMN	20451-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB

Antibody Name	Cat. No.	Type	Applications
SMN	22329-1-AP	Rabbit Poly	ELISA, IF, WB
SMN (Human, Mouse, Rat)	60154-2-Ig	Mouse Mono	ELISA, WB
SMN (Human-Specific)	60154-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
SMN-Exon7	60255-1-Ig	Mouse Mono	ELISA, IF, WB
SYNCRIP	14024-1-AP	Rabbit Poly	ELISA, IP, WB
UBE1	15912-1-AP	Rabbit Poly	ELISA, IHC, WB
UCHL1/PGP9.5	14730-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB

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## Spinocerebellar Ataxia (SCA)

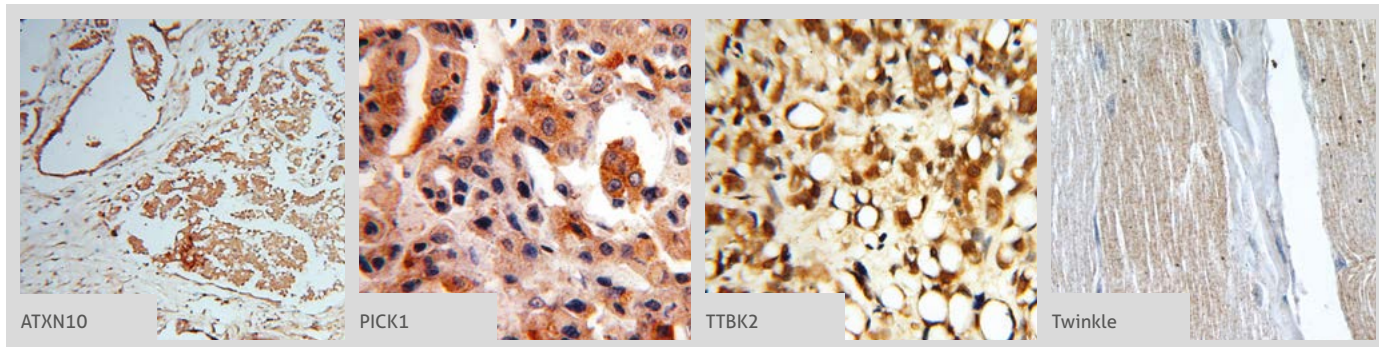
SCA is a progressive neuro disorder where the cerebellum slowly degenerates. Degenerative changes are also observed in the brainstem. Almost 30 genetic causes of SCA have been discovered. Six SCAs, including the more prevalent SCA1, SCA2, SCA3, and SCA6, along with SCA7 and SCA17, are caused by the expansion of a CAG repeat that encodes a polyglutamine tract in the affected protein. Typical symptoms include loss of body movement control, eye movement abnormalities, and less frequent retinal degeneration.

Antibody Name	Cat. No.	Type	Applications
A2BP1	22647-1-AP	Rabbit Poly	ELISA, IHC, IP
ABC7	11158-1-AP	Rabbit Poly	ELISA, IP, WB
AFG3L2	14631-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
ANO10	21901-1-AP	Rabbit Poly	ELISA, IP, WB

Antibody Name	Cat. No.	Type	Applications
APLP2	15041-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
Ataxin 2	21776-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
ATN1	19243-1-AP	Rabbit Poly	ELISA, IHC, WB
ATX3, ATXN3	13505-1-AP	Rabbit Poly	ELISA, IHC, WB

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Antibody Name	Cat. No.	Type	Applications
ATXN10	15693-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
CABC1	15528-1-AP	Rabbit Poly	ELISA, IF, WB
CNTN4	12777-1-AP	Rabbit Poly	ELISA, WB
ITPR1-specific	19962-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
mGluR1	19955-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
NOP56	18181-1-AP	Rabbit Poly	ELISA, WB
PICK1	10983-2-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
PKC gamma	14364-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
PPP2R2B	13123-1-AP	Rabbit Poly	ELISA, IF, IP, WB
PSMC1	11196-1-AP	Rabbit Poly	ELISA, WB

Antibody Name	Cat. No.	Type	Applications
SPTBN2	55107-1-AP	Rabbit Poly	ELISA, WB
STUB1	55430-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
TBP	22006-1-AP	Rabbit Poly	ELISA, IP, WB
TBP	66166-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
TBP	22246-1-AP	Rabbit Poly	ELISA, IF, WB
TDP1	10641-1-AP	Rabbit Poly	ELISA, IP, WB
TTBK2	15072-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Twinkle	13435-1-AP	Rabbit Poly	ELISA, IHC, WB
Twinkle	18793-1-AP	Rabbit Poly	ELISA, IHC, WB
VCP	10736-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
VCP	60316-1-Ig	Mouse Mono	ELISA, IF, IHC, WB

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