

For Research Use Only

# ACOX1 Recombinant antibody, PBS Only (Detector)

Catalog Number: 83731-2-PBS



## Basic Information

<b>Catalog Number:</b> 83731-2-PBS	<b>GenBank Accession Number:</b> BC010425	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 51	<b>CloneNo.:</b> 240754E3
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q15067	
<b>Isotype:</b> IgG	<b>Full Name:</b> acyl-Coenzyme A oxidase 1, palmitoyl	
<b>Immunogen Catalog Number:</b> AG1405	<b>Calculated MW:</b> 74 kDa	
	<b>Observed MW:</b> 70-74 kDa, 22 kDa	

## Applications

**Tested Applications:**  
WB, IHC, FC (Intra), Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human, mouse, rat

## Product Information

83731-2-PBS targets ACOX1 as part of a matched antibody pair:

MP00709-2: 83731-3-PBS capture and 83731-2-PBS detection (validated in Cytometric bead array)

MP00709-3: 83731-1-PBS capture and 83731-2-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

ACOX1 (Peroxisomal acyl-coenzyme A oxidase 1) is the first and rate-limiting enzyme in the peroxisomal fatty acid beta-oxidation pathway and catalyzes the desaturation of acyl-CoAs to 2-trans-enoyl-CoAs. It belongs to the acyl-CoA oxidase family and also named as ACOX, AOX, SCOX. It has 3 isoforms produced by alternative splicing with the molecular mass of 70-74 kDa and can be cleaved post-translationally into a 50-kDa and a 22-kDa subunit between Val468 and Ala469 (PMID: 10672038). Defects in ACOX1 are the cause of adrenoleukodystrophy pseudoneonatal (Pseudo-NALD).

## Storage

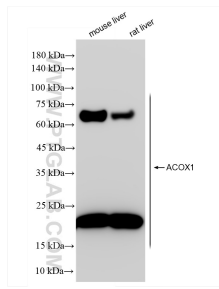
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

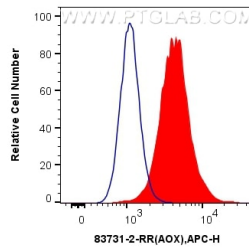
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

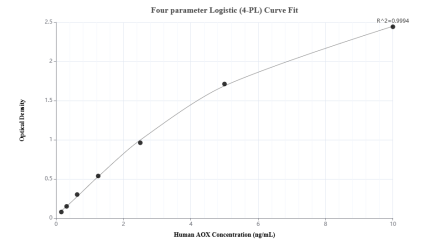
# Selected Validation Data



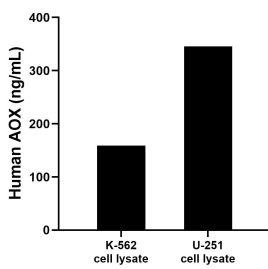
Various lysates were subjected to SDS PAGE followed by western blot with 83731-2-RR (ACOX1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83731-2-PBS in a different storage buffer formulation.



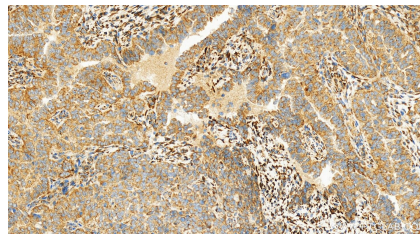
$1 \times 10^6$  A431 cells were intracellularly stained with 0.25 ug ACOX1 Recombinant antibody (83731-2-RR, Clone:240754E3) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 83731-2-PBS in a different storage buffer formulation.



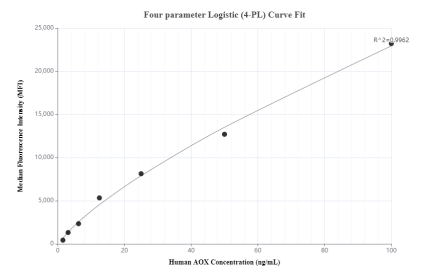
Sandwich ELISA standard curve of MP00709-3, Human AOX Recombinant Matched Antibody Pair - PBS only. 83731-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag1405. 83731-2-PBS was HRP conjugated as the detection antibody. Range: 0.156-10 ng/mL



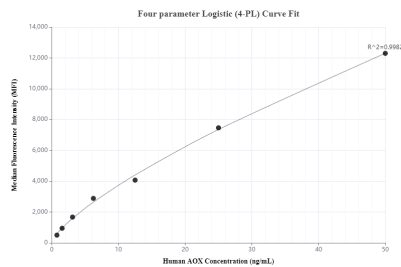
K-562 and U-251 cell lysates were measured. The human AOX concentration of detected samples was determined to be 158.79 ng/mL (based on a 2.1 mg/mL extract load) in K-562 cell lysate and 345.46 ng/mL (based on a 1.6 mg/mL extract load) in U-251 cell lysate.



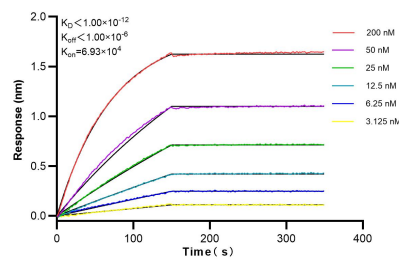
Immunohistochemical analysis of paraffin-embedded human ovarian cancer slide using 83731-2-RR (ACOX1 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83731-2-PBS in a different storage buffer formulation.



Cytochrometric bead array standard curve of MP00709-2, AOX Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83731-3-PBS. Detection antibody: 83731-2-PBS. Standard: Ag1405. Range: 1.56-100 ng/mL



Cytochrometric bead array standard curve of MP00709-3, AOX Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83731-1-PBS. Detection antibody: 83731-2-PBS. Standard: Ag1405. Range: 0.78-50 ng/mL



Biolayer interferometry (BLI) kinetic assays of 83731-2-RR against Human ACOX1 were performed. The affinity constant is below 1 pM.