For Research Use Only

## ACOX1 Recombinant antibody, PBS Only (Capture)

Catalog Number:83731-1-PBS



**Basic Information** 

Catalog Number: 83731-1-PBS

GenBank Accession Number: BC010425

Purification Method: Protein A purification

Size:

GeneID (NCBI):

CloneNo.:

1 mg/ml Source:

UNIPROT ID: Q15067 240754D3

Rabbit Isotype:

Full Name: acyl-Coenzyme A oxidase 1,

Immunogen Catalog Number:

palmitoyl

Calculated MW:

AG1405

74 kDa Observed MW: 70-74 kDa, 22 kDa

**Applications** 

**Tested Applications:** 

WB, IHC, IF/ICC, Cytometric bead array, Sandwich

ELISA, Indirect ELISA, Sample test

Species Specificity:

human

**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

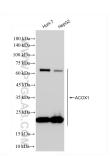
Storage:

Store at -80°C.

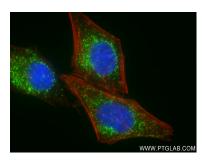
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C  $\,$ 

Storage Buffer: PBS Only

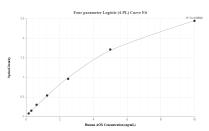
## Selected Validation Data



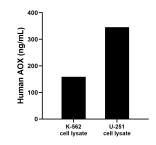
Various lysates were subjected to SDS PAGE followed by western blot with 83731-1-RR (ACOX1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83731-1-PBS in a different storage buffer formulation.



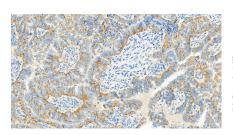
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using AOX antibody (83731-1-RR, Clone: 240754D3) at dilution of 1:250 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 83731-1-PBS in a different storage buffer formulation.



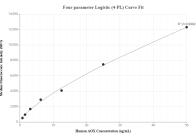
Sandwich ELISA standard curve of MP00709-3, Human AOX Recombinant Matched Antibody Pair-PBS only. 83731-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag1405. 83731-2-PBS was HRP conjugated as the detection antibody. Range: 0.156-10 ng/mL



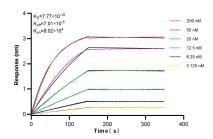
K-562 and U-251 cell lysates were measured. The human AOX concentration of detected samples was determined to be 158.79 ng/mL (based on a 2.1 mg/mL extract load) in K-562 cell lyaste and 345.46 ng/mL (based on a 1.6 mg/mL extract load) in U-251 cell lysate.



Immunohistochemical analysis of paraffinembedded human ovarian cancer slide using 83731-1-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 83731-1-PBS in a different storage buffer formulation.



Cytometric 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 (BLL) kinetic assays of 83731-1-RR against Human ACOX1 were performed. The affinity constant is 0.777 nM.