

SUMF1 Antibody (C-Term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9966A

Specification

SUMF1 Antibody (C-Term) - Product Information

Application WB, IHC-P, FC,E

Primary Accession O8NBK3 Other Accession **O0P5L5** Reactivity Human Predicted **Bovine** Host Rabbit Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 40556 Antigen Region 303-331

SUMF1 Antibody (C-Term) - Additional Information

Gene ID 285362

Other Names

Sulfatase-modifying factor 1, 1899-, C-alpha-formylglycine-generating enzyme 1, SUMF1, FGE

Target/Specificity

This SUMF1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 303-331 amino acids from the C-terminal region of human SUMF1.

Dilution

WB~~1:1000 IHC-P~~1:50~100 FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SUMF1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

SUMF1 Antibody (C-Term) - Protein Information

Name SUMF1 {ECO:0000303|PubMed:12757706, ECO:0000312|HGNC:HGNC:20376}



Tel: 858.875.1900 Fax: 858.875.1999

Function Oxidase that catalyzes the conversion of cysteine to 3- oxoalanine on target proteins, using molecular oxygen and an unidentified reducing agent (PubMed:12757706, PubMed:15657036, PubMed:15907468, PubMed:25931126, PubMed:16368756, PubMed: 21224894). 3- oxoalanine modification, which is also named formylglycine (fGly), occurs in the maturation of arylsulfatases and some alkaline phosphatases that use the hydrated form of 3-oxoalanine as a catalytic nucleophile (PubMed: 12757706, PubMed: 15657036, PubMed: 15907468, PubMed: 25931126, PubMed: 16368756). Known substrates include GALNS, ARSA, STS and ARSE (PubMed: 12757706, PubMed: 15907468, PubMed: 15657036).

Cellular Location

Endoplasmic reticulum lumen

Tissue Location

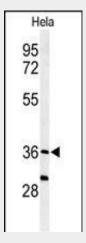
Ubiquitous. Highly expressed in kidney, pancreas and liver. Detected at lower levels in leukocytes, lung, placenta, small intestine, skeletal muscle and heart

SUMF1 Antibody (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

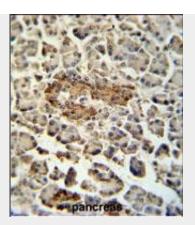
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SUMF1 Antibody (C-Term) - Images

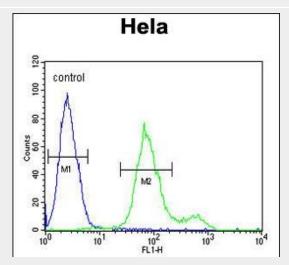


Western blot analysis of SUMF1 Antibody (C-Term) (Cat. #AP9966a) in Hela cell line lysates (35ug/lane). SUMF1 (arrow) was detected using the purified Pab.





SUMF1 Antibody (C-Term) (Cat. #AP9966a) immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SUMF1 Antibody (C-Term) for immunohistochemistry. Clinical relevance has not been evaluated.



SUMF1 Antibody (C-Term) (Cat. #AP9966a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

SUMF1 Antibody (C-Term) - Background

SUMF1 encodes an enzyme that catalyzes the hydrolysis of sulfate esters by oxidizing a cysteine residue in the substrate sulfatase to an active site 3-oxoalanine residue, which is also known as C-alpha-formylglycine.

SUMF1 Antibody (C-Term) - References

Oshikawa, M., et al. Mol. Vis. 15, 482-494 (2009) Fraldi, A., et al. Hum. Mol. Genet. 17(17):2610-2621(2008) Hara, K., et al. Neurology 71(8):547-551(2008) Yis, U., et al. Brain Dev. 30(5):374-377(2008)