

JAGN1 Antibody

Catalog # ASC11957

Product Information

Application	WB, IHC, E
Primary Accession	Q8N5M9
Other Accession	NP_115881 , 190014601
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21125
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	JAGN1 antibody can be used for detection of JAGN1 by Western blot at 1 - 2 μ g/ml. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL.

Additional Information

Gene ID	84522
Other Names	Protein jagunal homolog 1, JAGN1 (HGNC:26926)
Target/Specificity	JAGN1; JAGN1 antibody is human, mouse and rat reactive. At least four isoforms of JAGN1 are known to exist; this antibody will detect all but isoform 2.
Reconstitution & Storage	JAGN1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	JAGN1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	JAGN1 (HGNC:26926)
Function	Endoplasmic reticulum transmembrane protein involved in vesicle-mediated transport, which is required for neutrophil function. Required for vesicle-mediated transport; it is however unclear whether it is involved in early secretory pathway or intracellular protein transport. Acts as a regulator of neutrophil function, probably via its role in vesicle-mediated transport: required for defense against fungal pathogens and for granulocyte colony-stimulating factor (GM-CSF) signaling pathway; possibly by regulating glycosylation and/or targeting of proteins contributing to the viability and migration of neutrophils.

Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Ubiquitously expressed.

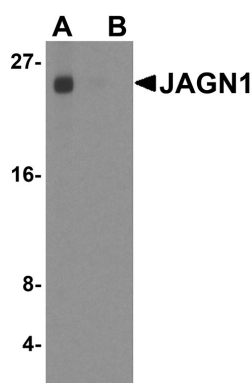
Background

JAGN1 is the human ortholog of a gene originally identified in *Drosophila melanogaster*. It is a transmembrane protein that functions in the early secretory pathway and is necessary for neutrophil differentiation and survival. Individuals with mutations in the JAGN1 gene causes aberrant myeloid cell homeostasis and severe congenital neutropenia (SCN) (1). JAGN1-mutant granulocytes are characterized by ultrastructural defects, aberrant N-glycosylation of multiple proteins, and increased apoptosis (1). Mice lacking this gene could not mount an efficient neutrophil-dependent immune response to a human fungal pathogen (2).

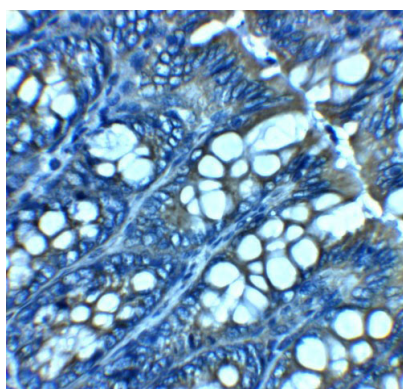
References

Boztug K, Jarvinen PM, Salzer E, et al. JAGN1 deficiency causes aberrant myeloid cell homeostasis and congenital neutropenia. *Nat. Genet.* 2014; 46:1021-7.
Wirnsberger G, Zwolanek F, Stadlmann J, et al. Jagunal homolog 1 is a critical regulator of neutrophil function in fungal host defense. *Nat. Genet.* 2014; 46:1028-33.

Images



Western blot analysis of JAGN1 in MCF7 cell lysate with JAGN1 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of JAGN1 in rat colon tissue with JAGN1 antibody at 2.5 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.