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IZUM1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18187a

Specification

IZUM1 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q8IYV9
Other Accession	NP_872381.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**38930**
Antigen Region	**77-105**

IZUM1 Antibody (N-term) - Additional Information

Gene ID 284359

Other Names
Izumo sperm-egg fusion protein 1, Oocyte binding/fusion factor, OBF, Sperm-specific protein izumo, IZUMO1

Target/Specificity
This IZUM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 77-105 amino acids from the N-terminal region of human IZUM1.

Dilution
WB~~1:1000

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
IZUM1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

IZUM1 Antibody (N-term) - Protein Information

Name IZUMO1 {ECO:0000303|PubMed:15759005, ECO:0000312|HGNC:HGNC:28539}

Function Essential sperm cell-surface protein required for fertilization by acting as a ligand for

IZUMO1R/JUNO receptor on egg. The IZUMO1:IZUMO1R/JUNO interaction is a necessary adhesion event between sperm and egg that is required for fertilization but is not sufficient for cell fusion. The ligand-receptor interaction probably does not act as a membrane 'fusogen'. Acts a ligand for the human- specific oolemma epitope FCRL3/MAIA during fertilization (PubMed:36070373). FCRL3/MAIA replaces IZUMO1R/JUNO as IZUMO1 receptor after sperm-egg adhesion, which permits species-specific gamete fusion (PubMed:36070373).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, secretory vesicle, acrosome membrane; Single-pass type I membrane protein. Note=Localizes initially to the acrosome membrane of the sperm head (both outer and inner acrosomal membranes) (PubMed:36070373). During the acrosome reaction, translocates to the plasma membrane (PubMed:15759005, PubMed:36070373).

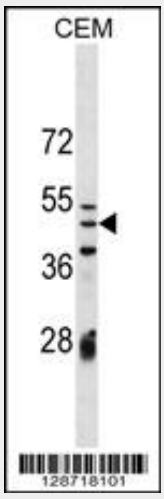
Tissue Location
Sperm-specific (at protein level) (PubMed:15759005, PubMed:36070373). Detectable on sperm surface only after the acrosome reaction (PubMed:15759005, PubMed:36070373)

IZUM1 Antibody (N-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

IZUM1 Antibody (N-term) - Images



IZUM1 Antibody (N-term) (Cat. #AP18187a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the IZUM1 antibody detected the IZUM1 protein (arrow).

IZUM1 Antibody (N-term) - Background

The sperm-specific protein Izumo, named for a Japanese

shrine dedicated to marriage, is essential for sperm-egg plasma membrane binding and fusion (Inoue et al., 2005 [PubMed 15759005]).

IZUM1 Antibody (N-term) - References

Ellerman, D.A., et al. Mol. Reprod. Dev. 76(12):1188-1199(2009)
Inoue, N., et al. Biochem. Biophys. Res. Commun. 377(3):910-914(2008)
Granados-Gonzalez, V., et al. Fertil. Steril. 90(4):1246-1248(2008)
Yatsenko, A.N., et al. Hum. Mol. Genet. 15(23):3411-3419(2006)
Inoue, N., et al. Nature 434(7030):234-238(2005)