

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

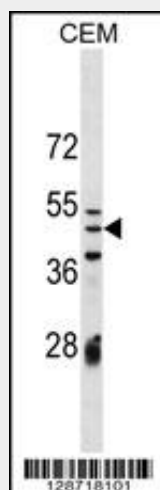
Sperm-specific (at protein level) (PubMed:15759005, PubMed:36070373). Detectable on sperm surface only after the acrosome reaction (PubMed:15759005, PubMed:36070373)

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 Cytometry](#)
- [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)