

IZUM1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP18187a**Specification**

IZUM1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q8IYV9](#)**IZUM1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 284359**Other Names**

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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IZUM1 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

IZUM1 Antibody (N-term) Blocking Peptide - Images**IZUM1 Antibody (N-term) Blocking Peptide - Background**

The sperm-specific protein Izumo, named for a Japaneseshrine dedicated to marriage, is essential for sperm-egg plasmamembrane binding and fusion (Inoue et al., 2005 [PubMed15759005]).

IZUM1 Antibody (N-term) Blocking Peptide - 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)