

IZUMO1 Rabbit pAb

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Catalog # AP56600

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8IYV9
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38930
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human IZUMO1
Epitope Specificity	151-250/350
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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]).[supplied by OMIM, Mar 2008]

Additional Information

Gene ID	284359
Other Names	Izumo sperm-egg fusion protein 1, Oocyte binding/fusion factor, OBF, Sperm-specific protein izumo, IZUMO1 {ECO:0000303 PubMed:15759005, ECO:0000312 HGNC:HGNC:28539}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	IZUMO1 {ECO:0000303 PubMed:15759005, ECO:0000312 HGNC:HGNC:28539}
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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). Plays a critical role in sperm-oolemma binding prior to plasma membrane fusion. Can mediate cell-cell fusion in cultured mammalian cells independently of its binding to IZUMO1R/JUNO (By similarity).
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)

Background

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