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TMPRSS12 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16784a

Specification

TMPRSS12 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q86WS5

TMPRSS12 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 283471

Other Names
Transmembrane protease serine 12, 3421-, TMPRSS12

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.

TMPRSS12 Antibody (N-term) Blocking Peptide - Protein Information

Name TMPRSS12 (HGNC:28779)

Function
Required for male fertility (By similarity). Plays a critical role in sperm capacitation and acrosome reactions during fertilization, and also plays a role in the regulation of proteins involved in spermatogenesis (By similarity). Regulates protein pathways that promote chromosomal synapsis formation, double-strand break repair, formation of the inner mitochondrial membrane cristae and apoptosis in developing sperm (By similarity). Required for normal sperm motility and binding to the zona pellucida, potentially via a role in ADAM3 protein maturation (By similarity).

Cellular Location
Cell membrane; Single-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, acrosome {ECO:0000250|UniProtKB:Q3V0Q7} Note=Expression in the acrosome decreases after acrosome reaction {ECO:0000250|UniProtKB:Q3V0Q7}

Tissue Location
In testis, expressed in spermatocytes and spermatids (at protein level).

TMPRSS12 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TMPRSS12 Antibody (N-term) Blocking Peptide - Images

TMPRSS12 Antibody (N-term) Blocking Peptide - Background

TMPRSS12 (transmembrane protease serine 12) is a 348 amino acid single-pass membrane protein that belong to the peptidase S1 family and contains one peptidase S1 domain. The gene that encodes TMPRSS12 consists of nearly 45,000 bases and maps to human chromosome 12q13.12. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster, which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster, encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms which vary in severity depending on the extent of mosaicism.

TMPRSS12 Antibody (N-term) Blocking Peptide - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Lamesch, P., et al. Genomics 89(3):307-315(2007)