

Rabbit Anti-CATSPER2 antibody

SL10473R

Product Name	CATSPER2
Chinese Name	阳离子通道精子相关蛋白 2 抗体
Alias	CTSR2_HUMAN; Cation channel sperm-associated protein 2; CatSper2; CatSper 2; CatSper-2; cation channel sperm-associated protein 2 isoform 2; sperm ion channel; cation channel sperm-associated protein 2; Putative ion channel protein CATSPER2 variant 1; Putative ion channel protein CATSPER2 variant 2; Putative ion channel protein CATSPER2 variant 3; Sperm associated cation channel 2.
Research Area	Cell biology Channel protein
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Dog, Pig, Cow, Horse, Sheep,) WB=1:500-2000 (Paraffin sections need antigen repair)
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	58kDa
Cellular localization	Extracellular matrix
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human CATSPER2: 1-100/530
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

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Calcium ions play a primary role in the regulation of sperm motility. This gene belongs to a family of putative cation channels that are specific to spermatozoa and localize to the flagellum. The protein family features a single repeat with six membrane-spanning segments and a predicted calcium-selective pore region. This gene is part of a tandem repeat on chromosome 15q15; the second copy of this gene is thought to be a pseudogene. Additional splice variants have been described but their full-length nature has not been determined. [provided by RefSeq, Aug 2008].

Function:

Voltage-gated calcium channel that plays a central role in calcium-dependent physiological responses essential for successful fertilization, such as sperm hyperactivation, acrosome reaction and chemotaxis towards the oocyte. Activated by extracellular progesterone and prostaglandins following the sequence: progesterone > PGF1-alpha = PGE1 > PGA1 > PGE2 >> PGD2. The primary effect of progesterone activation is to shift voltage dependence towards more physiological, negative membrane potentials; it is not mediated by metabotropic receptors and second messengers. Sperm capacitation enhances the effect of progesterone by providing additional negative shift. Also activated by the elevation of intracellular pH.

Product Detail

Subunit:

Heterotetramer; possibly composed of CATSPER1, CATSPER2, CATSPER3 and CATSPER4 (Potential). Component of the CatSper complex. Interacts with Ca(v)3.3/CACNA1I, leading to suppress T-type calcium channel activity.

Subcellular Location:

Cell projection, cilium, flagellum membrane; Multi-pass membrane protein. Note=Specifically located in the principal piece of sperm tail.

Tissue Specificity:

Testis-specific.

DISEASE:

Deafness-infertility syndrome (DIS) [MIM:611102]: Characterized by deafness and infertility and is caused by large contiguous gene deletions at 15q15.3 that removes both STRC and CATSPER2 genes. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

Belongs to the cation channel sperm-associated (TC 1.A.1.19) family.

SWISS:
Q8NHT9

Gene ID:
117155

Database links:

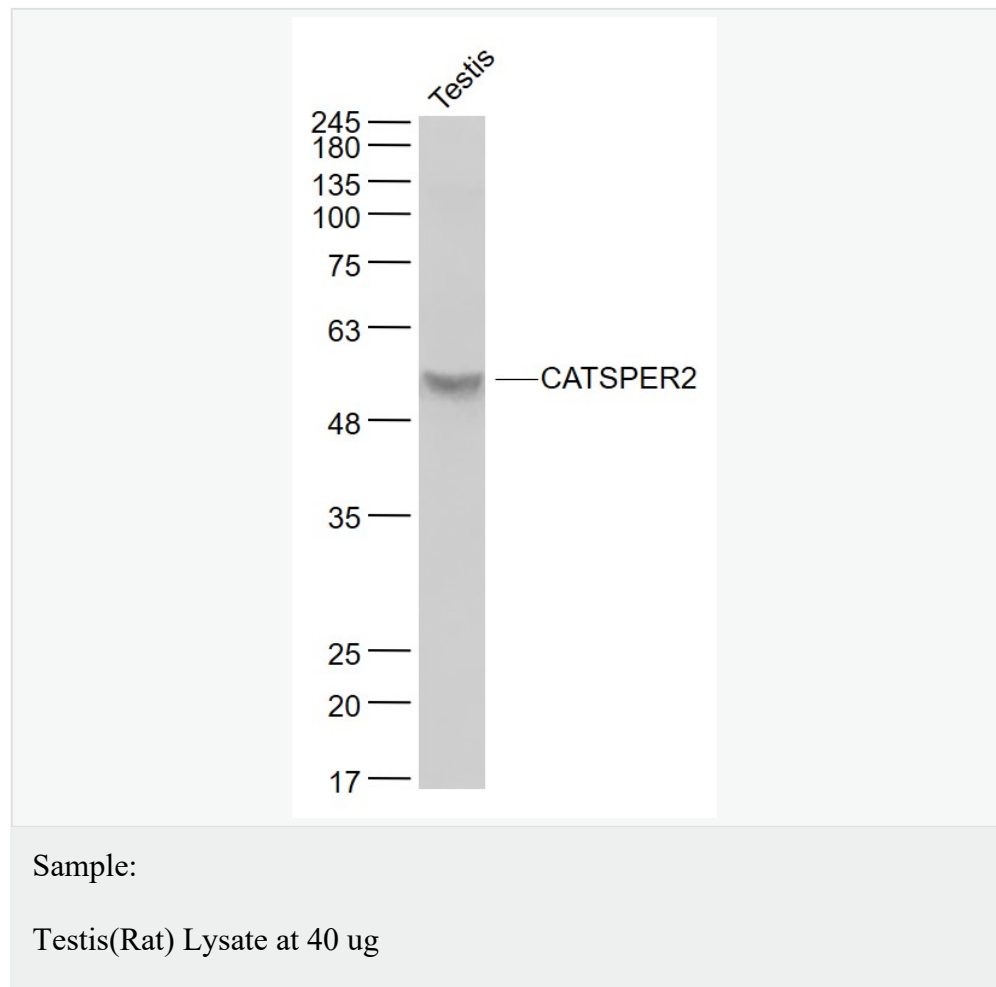
[Entrez Gene: 117155](#) Human

[Omim: 607249](#) Human

[SwissProt: Q8NHT9](#) Human

[Unigene: 662284](#) Human

Product Picture

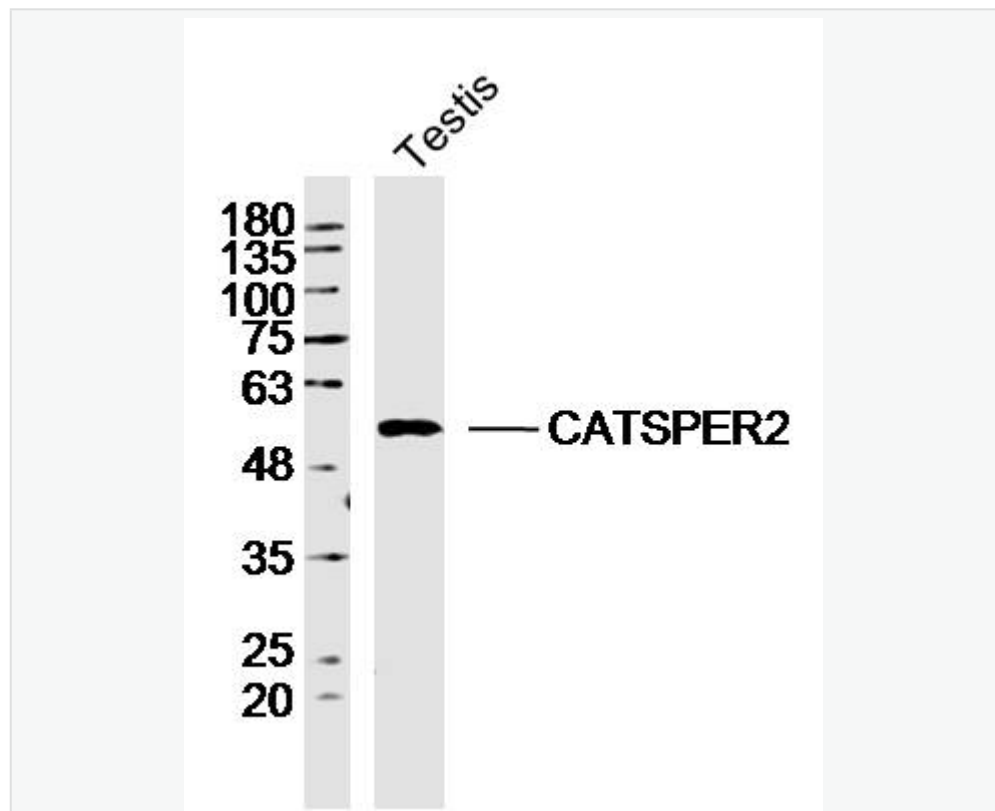


Primary: Anti- CATSPER2 (SL10473R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 58 kD

Observed band size: 58 kD



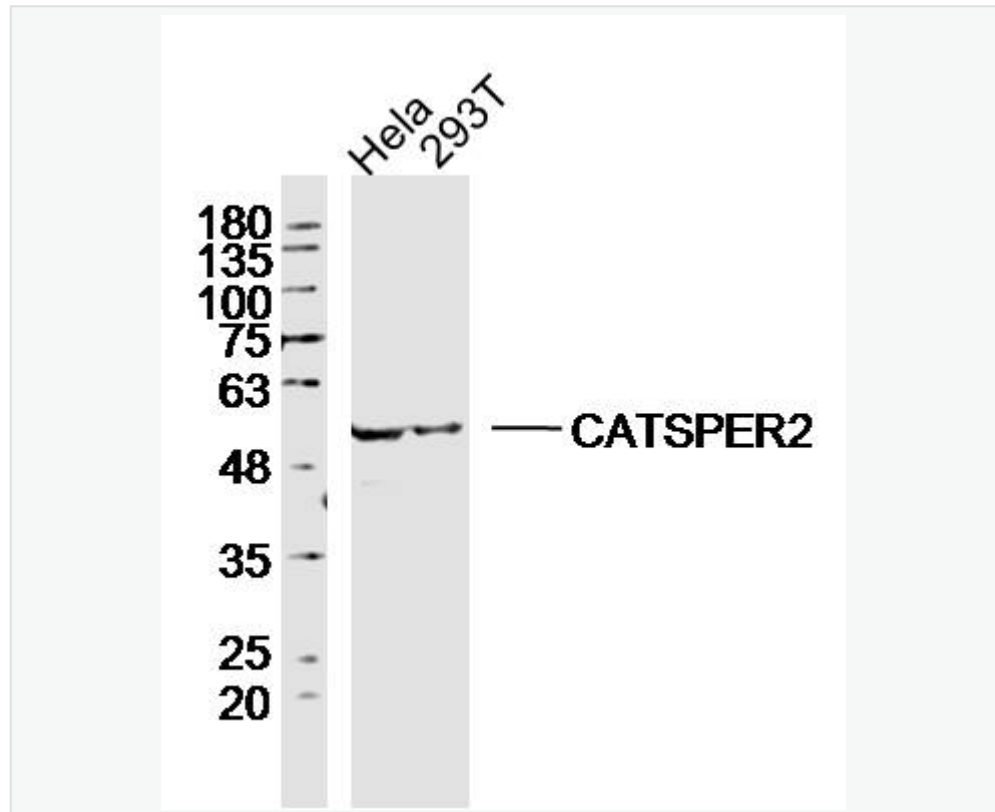
Sample: testis (Mouse) Lysate at 40 ug

Primary: Anti-CATSPER2(SL10196R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 58 kD

Observed band size: 58 kD



Sample:

Hela (human)Cell Lysate at 40 ug

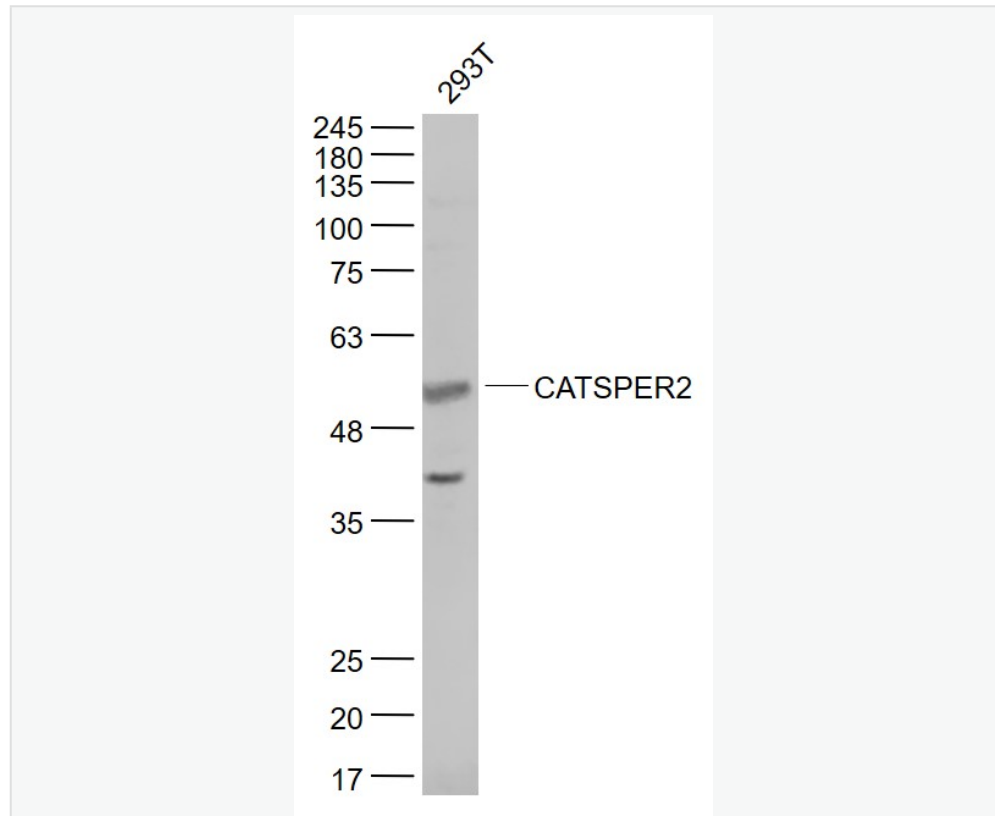
293T (human)Cell Lysate at 40 ug

Primary: Anti-CATSPER2(SL10473R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 58 kD

Observed band size: 58 kD



Sample:

293T(Human) Cell Lysate at 30 ug

Primary: Anti- CATSPER2 (SL10473R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 58 kD

Observed band size: 58 kD