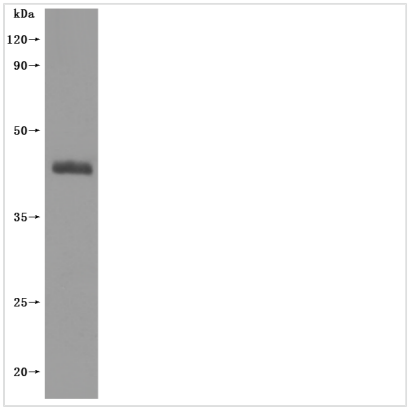
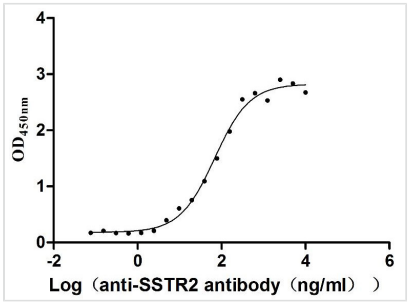
Recombinant Human Somatostatin receptor type 2 (SSTR2)-VLPs (Active)

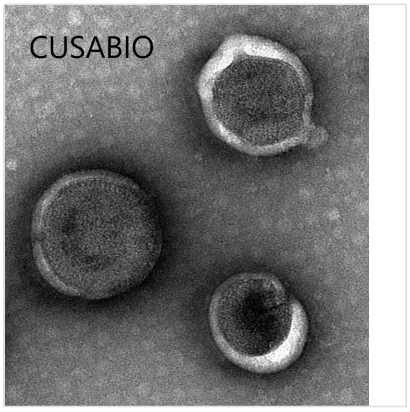
Product Code	CSB-MP022725HU
Abbreviation	Recombinant Human SSTR2 protein-VLPs (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P30874
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Biological Activity	①Measured by its binding ability in a functional ELISA. Immobilized Human SSTR2 at 10 μg/mL can bind Anti-SSTR2 recombinant antibody (CSB-RA022725MA01HU), the EC_{50} is 58.13-81.28 ng/mL.②Blocking experiment on Anti-SSTR2 antibody (CSB-RA022725MA01HU) between Human SSTR2-VLPs protein and CT26/Human SSTR2 Stable Cells (CSB-SC022725HU) by Flow cytometry.
Sequence	MDMADEPLNGSHTWLSIPFDLNGSVVSTNTSNQTEPYYDLTSNAVLTFIYFVV CIIGLCGNTLVIYVILRYAKMKTITNIYILNLAIADELFMLGLPFLAMQVALVHWPF GKAICRVVMTVDGINQFTSIFCLTVMSIDRYLAVVHPIKSAKWRRPRTAKMITM AVWGVSLLVILPIMIYAGLRSNQWGRSSCTINWPGESGAWYTGFIIYTFILGFLV PLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEKKVTRMVSIVVAVFIFCWLPFYIFNV SSVSMAISPTPALKGMFDFVVVLTYANSCANPILYAFLSDNFKKSFQNVLCLVK VSGTDDGERSDSKQDKSRLNETTETQRTLLNGDLQTSI
Source	Mammalian cell
Target Names	SSTR2
Expression Region	1-369aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-tagged (This tag can be tested only under denaturing conditions)
Mol. Weight	42.5 kDa
Protein Length	Full Length
Image	



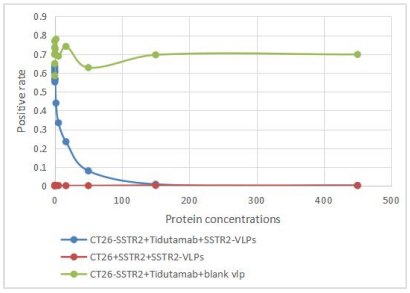
CSB-MP022725HU is detected by Mouse anti-6*His monoclonal antibody.



Activity
Measured by its binding ability in a functional ELISA. Immobilized Human SSTR2 at 10 μg/ml can bind Anti-SSTR2 recombinant antibody (CSB-RA022725MA01HU), the EC_{50} is 58.13-81.28 ng/mL.



The presence of VLP-like structures was confirmed by TEM



Blocking experiment on Anti-SSTR2 antibody (CSB-RA022725MA01HU) between Human SSTR2-VLPs protein and CT26/Human SSTR2 Stable Cells (CSB-SC022725HU) by Flow cytometry.

Description

The recombinant human somatostatin receptor type 2 (SSTR2)-VLPs are produced using virus-like particles (VLPs) technology. Clone the target gene including the human SSTR2 encoding gene with the C-terminal 6xHis-tag gene into an expression vector along with the viral capsid proteins. Introduce the expression vector into the mammalian cells. Culture the cells, induce protein expression, and harvest the cells to obtain the VLPs. Purify the VLPs using affinity chromatography. CUSABIO has characterized the VLPs with TEM and

validated the functionality of the recombinant SSTR2 protein through ELISA. The endotoxin of this protein is less than 1.0 EU/ug as determined by the LAL method.

SSTR2 is a protein that's pretty important in the body's workings. It's found in various tissues and helps regulate the release of growth hormone (GH), which is tied to conditions like acromegaly [1]. SSTR2 works by picking up signals from outside the cell and passing them inside using different pathways [2]. It also has a role in controlling the release of interferon?γ in certain immune cells [3]. Besides, SSTR2 seems to have a say in how cells in our gums react to things like inflammation, infections, and even obesity-related signals [4][5]. Plus, it helps keep luteinizing hormone (LH) levels steady during breastfeeding [6]. When it comes to acromegaly, SSTR2 steps in to keep GH levels in check and shrink tumors [1]. It's found in the gut's lining and nerve cells [7].

Sometimes SSTR2's job can be thrown off by changes in how our genes are marked, like methylation, which can make it less effective [8][9]. There's also evidence linking SSTR2 to nerve damage after a stroke, where it seems to get more active in certain brain areas [10]. Plus, it's been put into the class B receptor, which helps us understand how it works with other proteins in the cell [11]. Understanding this classification helps us grasp how SSTR2 interacts with different partners inside the cell.

References:

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Identification of cells expressing somatostatin receptor 2 in the gastrointestinal tract of sstr2 knockout/lacz knockin mice, The Journal of Comparative Neurology, vol. 454, no. 3, p. 329-340, 2002. https://doi.org/10.1002/cne.10466
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Endotoxin	Less than 1.0 EU/ug as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.