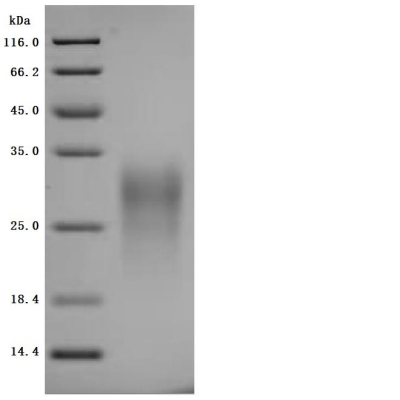
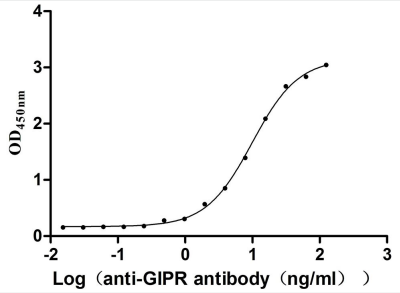
Recombinant Mouse Gastric inhibitory polypeptide receptor (Gipr), partial (Active)

Product Code	CSB-MP009438MO1
Abbreviation	Recombinant Mouse Gipr protein, partial (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.	Q0P543
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Mouse Gipr at 2 μg/mL can bind Anti-Mouse Gipr Recombinant Antibody (CSB-RA009438MA1MO), the EC50 is 8.622-11.36 ng/ml.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	ETDSEGQTTTGELYQRWEHYGQECQKMLETTEPPSGLACNGSFDMYACWNYTAANTTARVSCPWYLPWFRQVSAGFVFRQCGSDGQWGSWRDHTQCENPEKNGAFQDQTLILERLQ
Source	Mammalian cell
Target Names	Gipr
Expression Region	19-134aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 10xHis-tagged
Mol. Weight	14.7 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity
Measured by its binding ability in a functional ELISA. Immobilized Mouse Gipr at 2μg/mL can bind Anti-Mouse Gipr recombinant antibody (CSB-RA009438MA1MO)? the EC_{50} is 8.622-11.36 ng/mL.

Description

The gene sequence encoding amino acids 19 to 134 of the mouse gastric inhibitory polypeptide receptor (Gipr) is combined with a 10xHis-tag gene sequence at its C-terminus and then integrated into a plasmid vector. This recombinant vector is introduced into mammalian cells, and the cells that have been transfected are carefully selected and cultured to facilitate the expression of the protein. The recombinant mouse Gipr protein is isolated from the cell lysate. This protein's purity surpasses 95%, as determined using SDS-PAGE analysis, and its endotoxin content is less than 1.0 EU/μg as assessed by the LAL method. The functional capacity of the protein is affirmed through a functional ELISA test. When immobilized at a concentration of 2 μg/mL, the mouse Gipr protein effectively binds with the anti-Mouse Gipr recombinant antibody (CSB-RA009438MA1MO), with an EC_{50} of ranging from 8.622 to 11.36 ng/ml.

Gipr has a widespread distribution in the body, being expressed in organs like the pancreas, stomach, small intestine, adipose tissue, heart, and brain tissue, where many cells directly or indirectly control body weight. Activating the GIP-Gipr signaling pathway not only stimulates the secretion of insulin and glucagon-like peptide-1 but also promotes the proliferation and survival of pancreatic β-cells, playing a significant role in blood glucose regulation. The Gipr gene polymorphism is associated with elevated BMI and increased visceral fat content in the body. The mouse Gipr shares about 83% homology with the human Gipr, with relatively similar structure and function. Developing drugs to treat obesity is one of the most promising directions currently. Most of these processes require validation in preclinical mouse animal models, making the preparation of active mouse Gipr protein essential. Therefore, preparing the mouse Gipr contributes to the development of drugs with cross-species reactivity and further aid in clinical drug research and development.

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.