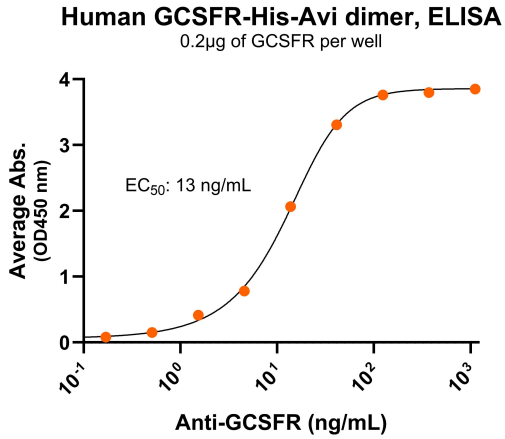
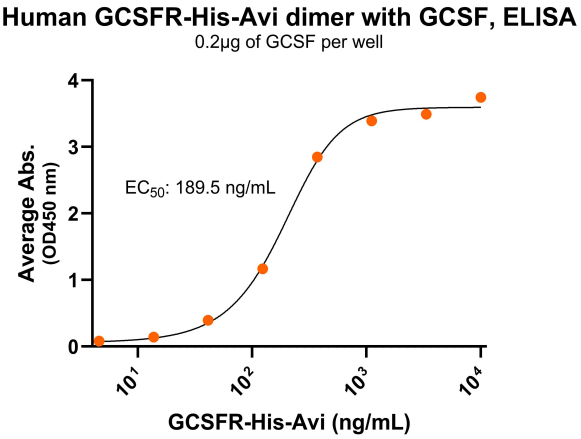
Bioactive, Human GCSFR Dimer, His-Avi Tag
Product Code: CSP-24086
For Research Use Only (RUO)

Bioactivity – Antibody Binding



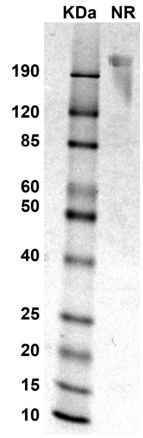
Immobilized human GCSFR-His-Avi dimer protein (CSP-24086) at 2 μg/mL (100 μL/well) can bind anti-human GCSFR monoclonal antibody with half maximal effective concentration (EC50) range of 6.5-25.9 ng/mL (QC tested).

Bioactivity – Ligand Binding



Immobilized human GCSFR-His-Avi dimer protein (CSP-24086) at 2 μg/mL (100 μL/well) can bind human GCSF with half maximal effective concentration (EC50) range of 94.8-379 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: GCSFR dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing conditions is greater than 190 kDa on SDS PAGE.

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Expression Host
HEK293T

Protein Name
GCSFR

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Alternate Name(s)
G-CSF-R, CD114, Cluster of Differentiation 114, CSF3R, colony stimulating factor 3 receptor, SCN7

Protein Construct
GCSFR dimer protein contains a GCSFR extracellular domain (UniProt# Q99062) fused with a proprietary dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
E25-H627

SDS-Page Molecular Weight
154 kDa. The migration range of the dimer protein with glycosylation under non-reducing conditions is greater than 190 kDa on SDS PAGE.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Human granulocyte colony-stimulating factor receptor (GCSFR) is a transmembrane receptor and a member of the Type I cytokine receptor family. GCSFR is also known as G-CSF-R, cluster of differentiation 114 (CD114), CSF3R, colony stimulating factor 3 receptor, and SCN7. GCSFR contains an extracellular domain with an immunoglobulin-like (Ig-like) domain, a cytokine receptor homologous domain, and three fibronectin type III domains followed by a transmembrane domain, and cytoplasmic domain. GCSFR is a cell-surface receptor for granulocyte colony-stimulating factor (GCSF) and is expressed on precursor cells in the bone marrow. It exists as a monomer, pre-formed dimer, ligand-induced dimer, and ligand independent dimer. GCSFR's dimerization is crucial for its functions in both physiological and pathological status. Increased GCSFR expression has been shown in a variety of cancers and is related to tumor proliferation, migration, and metastasis. GCSFR is an emerging target of cancer therapeutics.