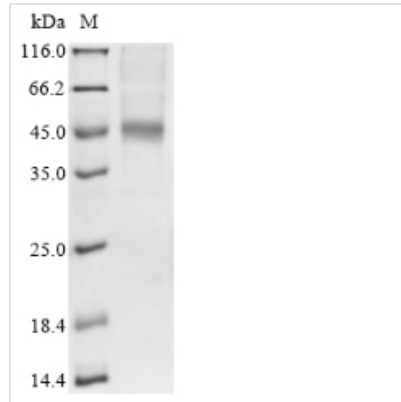




Recombinant Human Fibroblast growth factor receptor 1 (FGFR1), partial

Product Code	CSB-YP008642HU
Abbreviation	Recombinant Human FGFR1 protein, partial
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.	P11362
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	RPSPTLPEQAQPWGAPVEVESFLVHPGDLLQLRCRLRDDVQSINWLRDGVQL AESNRTRITGEEVEVQDSVPADSGLYACVTSSPSGSDTTYFSVNVSDALPSSE DDDDDDSSSEEKTDNTKPNRMPVAPYWTSPEKMEKKLHAVPAAKTVKFK CPSSGTPNPTLRWLKNGKEFKPDHRIGGYKVRyatWSIIMDSVVPsDKGNYT CIVENEYGSINHTYQLDVVERSPHRPILQAGLPANKTVALGSNVEFMCKVYSD PQPHIQWLKHIEVNGSKIGPDNLPYVQILKTAGVNTTdkEMEVLHLRNVSFEDA GEYTCLAGNSIGLSHHSawLTVLEALEERPAVMTSPLYLE
Research Area	Cancer
Source	Yeast
Target Names	FGFR1
Expression Region	22-376aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	41.4 kDa
Protein Length	Partial
Image	



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

Description

Recombinant Human Fibroblast Growth Factor Receptor 1 (FGFR1) is expressed in yeast and contains amino acids 22 to 376 of the human protein. This partial protein carries an N-terminal 6xHis-tag, which makes purification and detection more straightforward. The product shows purity greater than 85% as verified by SDS-PAGE, which should provide reliable results for research applications. It's designed strictly for research use, with no biological functions or disease relevance stated.

FGFR1 belongs to the fibroblast growth factor receptor family and plays what appears to be a critical role in cell growth, differentiation, and angiogenesis. The receptor participates in several signaling pathways, including the MAPK and PI3K/AKT pathways—both seem pivotal for cellular communication and regulation. FGFR1 has become a key area of research interest, largely due to its likely involvement in developmental processes and various cellular functions.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Antibody Development and Validation Studies

This recombinant FGFR1 protein (22-376aa) can work as an immunogen or screening antigen for developing monoclonal or polyclonal antibodies against human FGFR1. The N-terminal 6xHis tag allows for easier purification and immobilization in ELISA-based antibody screening and characterization assays. Since it covers the extracellular domain, it may be suitable for generating antibodies that recognize native FGFR1 epitopes. Researchers might use this protein to validate antibody specificity and determine binding affinities through various immunoassays.

2. Protein-Protein Interaction Studies

The His-tagged FGFR1 can be applied in pull-down assays to identify and characterize protein binding partners or ligands that interact with the FGFR1



extracellular domain. The 6xHis tag allows for immobilization on nickel-based resins during affinity purification experiments. This application appears particularly valuable for studying FGF ligand binding interactions and mapping binding domains within the 22-376aa region. The yeast expression system likely provides proper eukaryotic folding that may preserve native binding conformations.

3. Biochemical Characterization and Stability Studies

This recombinant protein can be used for comprehensive biochemical analysis—thermal stability studies, pH tolerance testing, and protein folding investigations. The >85% purity level should be sufficient for spectroscopic analyses such as circular dichroism to study secondary structure and protein stability under various conditions. Researchers can perform size exclusion chromatography and dynamic light scattering experiments to characterize oligomerization states and aggregation behavior of the FGFR1 extracellular domain.

4. Competitive Binding Assays and Ligand Screening

The recombinant FGFR1 protein can serve as a target in competitive binding assays to screen for small molecules or peptides that interact with the receptor's extracellular domain. The His tag provides consistent immobilization for high-throughput screening platforms and surface plasmon resonance studies. This application may support drug discovery research by identifying potential FGFR1 modulators and characterizing their binding kinetics and affinities.

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.