

#### **Synonym**

FZD7,Frizzled-7,FzE3,Fz-7,hFz7

#### Source

Human Frizzled-7, His Tag(FZ7-H52H9) is expressed from human 293 cells (HEK293). It contains AA Gln 33 - Leu 185 (Accession # <u>O75084-1</u>). Predicted N-terminus: Gln 33

#### **Molecular Characterization**

Frizzled-7(Gln 33 - Leu 185) 075084-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 18.6 kDa. The protein migrates as 25-32 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

# **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

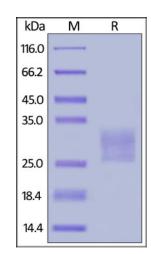
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### **SDS-PAGE**

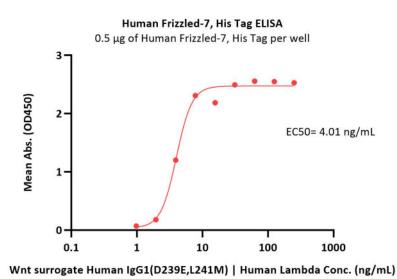


Human Frizzled-7, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

### **Bioactivity-ELISA**

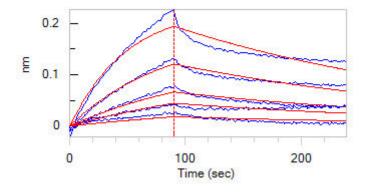






Immobilized Human Frizzled-7, His Tag (Cat. No. FZ7-H52H9) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Wnt surrogate Human IgG1(D239E,L241M) | Human Lambda with a linear range of 1-16 ng/mL (QC tested).

### **Bioactivity-BLI**



Loaded Biotinylated Human Glypican 3, His, Avitag, premium grade (Cat. No. GP3-H82E5) on SA Biosensor, can bind Human Frizzled-7, His Tag (Cat. No. FZ7-H52H9) with an affinity constant of 1.18 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

# Background

Frizzled-7 (FZD7) is also known as FzE3, which belongs to the G-protein coupled receptor Fz/Smo family. Most of frizzled receptors are coupled to the beta-catenin canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin and activation of Wnt target genes. FZD7 contains one FZ (frizzled) domain. FZD7 is receptor for Wnt proteins. FZD7 may be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. FZD7 interacts with MAGI3 and DVL1.

# **Clinical and Translational Updates**

