# Human CD5 Protein, His Tag

Catalog # CD5-H52H5



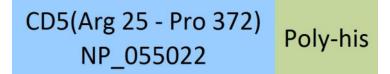
#### Synonym

CD5,LEU1

#### Source

Human CD5, His Tag(CD5-H52H5) is expressed from human 293 cells (HEK293). It contains AA Arg 25 - Pro 372 (Accession # <u>NP\_055022</u>). Predicted N-terminus: Arg 25

## **Molecular Characterization**



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

The protein has a calculated MW of 40.5 kDa. The protein migrates as 45-53 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method.

## Purity

>95% 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

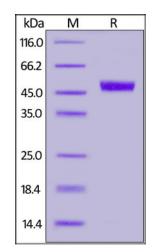
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Human CD5, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

#### **Bioactivity-ELISA**



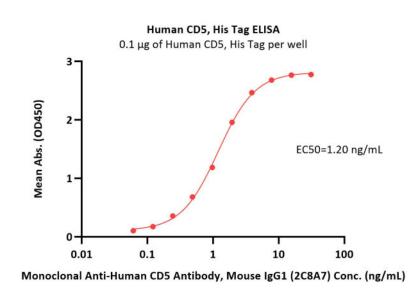
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Immobilized Human CD5, His Tag (Cat. No. CD5-H52H5) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-Human CD5 Antibody, Mouse IgG1 (2C8A7) with a linear range of 0.06-4 ng/mL (QC tested).

#### Background

T-cell surface glycoprotein CD5 is also known as Lymphocyte antigen T1/Leu-1 and LEU1, which is phosphorylated on tyrosine residues by LYN, so CD5 can create binding sites for PTPN6/SHP-1.CD5 may act as a receptor in regulating T-cell proliferation. CD5 is expressed at various developmental and activation stages on human B cells.CD5 is a well established negative regulator of TCR and BCR signalling.CD5-positive cells may also prevent the emergence of autoimmunity by provision of cytokines such as IL-10. Development, selection and function of different B- and T-cell subsets or their preferential survival may be directly or indirectly dependent on different glycan structures associated with CD5 or CD5-like molecules.

### **Clinical and Translational Updates**



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