

Active Recombinant Human CD24 protein, Fc/Avi-tagged, Biotinylated

Cat. No. CD24-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human CD24(Ser27-Gly59) protein, fused to Fc/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Ser27-Gly59
Description	CD24, also known as Heat-Stable Antigen and Nectadrin, is a heavily and variably glycosylated 30 kDa-60 kDa GPI-linked sialoprotein (1-4). Human CD24 is expressed on B lineage cells and granulocytes, on epithelial, neuronal, and muscle cells, and on a range of tumor cells (4-6). In mouse, CD24 is even more widely expressed, particularly on T cells, monocytes, and dendritic cells (2). CD24 expression is regulated during lineage development and with the activation of various cell types (4). Antibody crosslinking of CD24 enhances the induction of apoptosis in B and T lymphocytes which contributes to negative selection and the induction of immune tolerance (7-11). CD24 on antigen presenting cells cooperates with B7 molecules in the co-stimulation of T cells (12-14). CD24 associates in cis with Siglec-10 (or Siglec-G in mouse) and with the danger-associated molecules HMGB1, HSP70, or HSP90 which are released from necrotic or damaged cells (15). Formation of these ternary complexes fills a protective role: the resulting Siglec-10 signaling inhibits inflammatory responses that are otherwise induced by extracellular DAMPs (15, 16). Mature

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human CD24 shares 30% and 42% amino acid sequence identity with mouse and rat CD24, respectively. Our Avi-tag Biotinylated human CD24 features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

Predicted N Terminal	Ser27
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human Siglec-10 Fc Chimera is coated at 5 µg/mL, the concentration of Biotinylated Recombinant Human CD24 Fc Chimera Avi-tag that produces 50% optimal binding response is found to be approximately 1.5-7.5 µg/mL.
Molecular Mass	43-55 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.

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Reconstitution Reconstitute at 250 µg/mL in PBS.

Conjugation Biotin

GENE INFORMATION

Gene Name CD24 CD24 molecule [Homo sapiens]

Official Symbol CD24

Synonyms CD24; CD24 molecule; CD24 antigen (small cell lung carcinoma cluster 4 antigen); signal transducer CD24; CD24A; FLJ22950; FLJ43543; MGC75043;

Gene ID 100133941

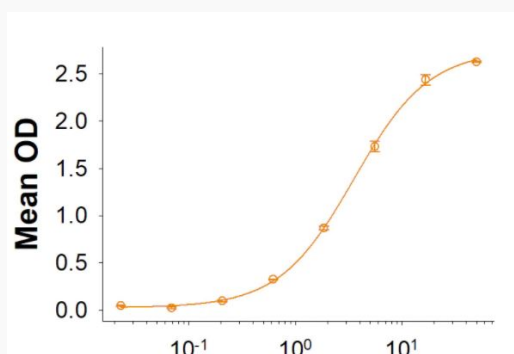
mRNA Refseq NM_013230

Protein Refseq NP_037362

MIM 600074

UniProt ID P25063

Binding Activity

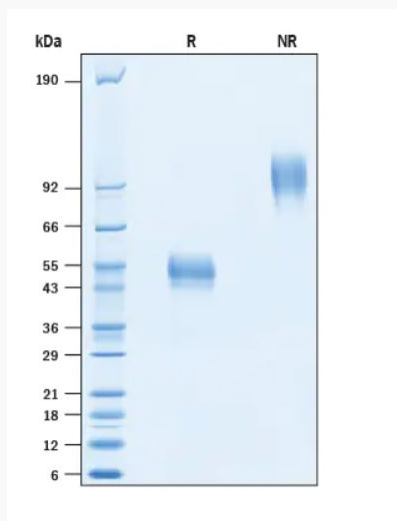


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SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.