

## Cluster Of Differentiation 320 (CD320) Active Protein | CD320 active protein

Active Cluster Of Differentiation 320 (CD320)

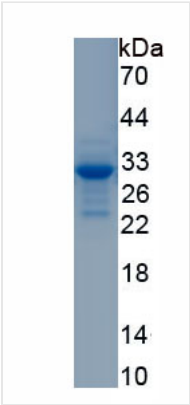
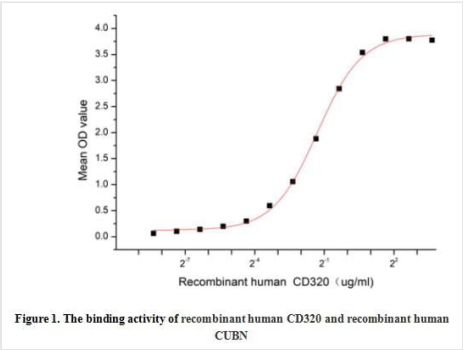
|                               |                       |                                                     |
|-------------------------------|-----------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA161823</b> | HOST<br><b>E Coli</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|-----------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

Cluster Of Differentiation 320 (CD320); Active Cluster Of Differentiation 320 (CD320); Cluster Of Differentiation 320; 8D6; 8D6A; CD320 Antigen; TCbIR; FDC-signaling molecule 8D6; Transcobalamin receptor4; CD320 active protein

### PRODUCT SPECIFICATIONS

|                                                  |                                                                                              |
|--------------------------------------------------|----------------------------------------------------------------------------------------------|
| Host                                             | E Coli                                                                                       |
| Purity/Purification                              | Greater than 90% by SDS-PAGE                                                                 |
| Form/Format                                      | Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300. |
| Sequence                                         | Ser36~Tyr2 29                                                                                |
| Applicable Applications for CD320 active protein | Activity Assay, Cell Culture                                                                 |
| Species                                          | Human                                                                                        |
| Expression System                                | Prokaryotic expression                                                                       |
| Tag                                              | N-terminal His Tag                                                                           |
| Endotoxin Level                                  | <1.0EU per 1ug (determined by the LAL method)                                                |
| Isoelectric Point                                | 4.1                                                                                          |
| Research Area                                    | Signal transduction, CD & Adhesion molecule, Tumor immunity, Immune molecule                 |
| Preparation and Storage                          | Store at 2-8 degree C for one month, -80 degree C for 12 months                              |



Bioactivity

CD320, also known as the Transcobalamin II receptor (TCb1R) and 8D6A, is an approximately 60 kDa transmembrane member of the LDL receptor family. CD320 is expressed in virtually all tissues and is tightly regulated according to the proliferative/differentiation status of the cell and the cellular levels of B12. Cellular uptake of vitamin B12 (cobalamin) requires capture of transcobalamin (TC) from the plasma by CD320. Cubilin (CUBN) is the intrinsic factor-vitamin B12 receptor, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CD320 and recombinant human CUBN. Briefly, biotin-linked CD320 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CUBN-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 ul stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human CD320 and recombinant human CUBN was shown in Figure 1, the EC50 for this effect is 0.4 ug/mL.

SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

|                                                       |                 |
|-------------------------------------------------------|-----------------|
| Product Categories/Family for CD320<br>active protein | Active proteins |
|-------------------------------------------------------|-----------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                        |
|----------------------------------|----------------------------------------|
| NCBI GI #                        | 74734303                               |
| NCBI GeneID                      | 51293                                  |
| UniProt Accession #              | Q9NPF0; Q53HF7; B2RDS5; D6W668; F5H6D3 |
| Molecular Weight                 | 24,371 Da                              |
| NCBI Official Full Name          | CD320 antigen                          |
| NCBI Official Synonym Full Names | CD320 molecule                         |
| NCBI Official Symbol             | CD320                                  |
| NCBI Official Synonym Symbols    | 8D6; 8D6A; TCBLR                       |
| NCBI Protein Information         | CD320 antigen                          |
| UniProt Protein Name             | CD320 antigen                          |
| UniProt Gene Name                | CD320                                  |
| UniProt Synonym Gene Names       | 8D6A; TCb1R                            |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.