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### **CD320 ELISA Kit**





#### Overview

| Quantity:                | 96 tests         |
|--------------------------|------------------|
| Target:                  | CD320            |
| Binding Specificity:     | AA 36-229        |
| Reactivity:              | Human            |
| Method Type:             | Sandwich ELISA   |
| Detection Range:         | 156-10.000 pg/mL |
| Minimum Detection Limit: | 156 pg/mL        |
| Application:             | ELISA            |

#### **Product Details**

| Purpose:                    | Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD320/8D6A |
|-----------------------------|--|
| Brand:                      | PicoKine™  |
| Sample Type:                | Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Urine            |
| Analytical Method:          | Quantitative   |
| Detection Method:           | Colorimetric   |
| Immunogen:                  | Expression system for standard: NSO  |
|                             | Immunogen sequence: S36-Y229   |
| Specificity:                | Expression system for standard: NSO  |
|                             | Immunogen sequence: S36-Y229   |
| Cross-Reactivity (Details): | There is no detectable cross-reactivity with other relevant proteins.              |

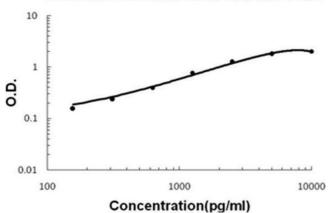
#### **Product Details**

| Sensitivity:           | <10pg/mL   |
|------------------------|--|
| Material not included: | Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette      |
|                        | tips. Multichannel pipettes are recommended in the condition of large amount of samples in the   |
|                        | detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation     |
|                        | of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl   |
| Target Details         |  |
| Target:                | CD320  |
| Alternative Name:      | CD320 (CD320 Products)   |
| Background:            | Protein Function: Germinal center-B (GC-B) cells differentiate into memory B-cells and plasma    |
|                        | cells (PC) through interaction with T-cells and follicular dendritic cells (FDC). CD320 augments |
|                        | the proliferation of PC precursors generated by IL-10. Receptor for the cellular uptake of       |
|                        | transcobalamin bound cobalamin.  |
|                        | Background: CD320(cluster of differentiation 320), also known as 8D6A or TCBLR, is a human       |
|                        | gene. It is mapped to chromosome 19p13.2. This gene encodes the transcobalamin receptor          |
|                        | that is expressed at the cell surface. It mediates the cellular uptake of transcobalamin bound   |
|                        | cobalamin(vitamin B12), and the expression of CD320 enhanced B-cell proliferation and            |
|                        | immunoglobulin secretion. Mutations in this gene are associated with methylmalonic aciduria.     |
|                        | It has been found that antagonists of the CD320 signaling pathway may counter the growth of      |
|                        | follicular lymphomas or other tumors that metastasize to lymphoid follicles. CD320 is also a     |
|                        | specific receptor for uptake of TCN2-bound cobalamin.  |
|                        | Synonyms: CD320 antigen,8D6 antigen,FDC-signaling molecule 8D6,FDC-SM-                           |
|                        | 8D6,Transcobalamin receptor,TCbIR,CD320,CD320,8D6A,UNQ198/PRO224,                                |
|                        | Full Gene Name: CD320 antigen  |
|                        | Cellular Localisation: Membrane, Single-pass type I membrane protein.                            |
| Gene ID:               | 51293  |
| UniProt:               | Q9NPF0   |
| Application Details    |  |
| Application Notes:     | Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well     |
|                        | assay was recommended for both standard and sample testing.                                      |
| Comment:               | Tissue Specificity: Expressed abundantly on follicular dendritic cells (FDCs).                   |
|                        |  |

# **Application Details**

| Plate:           | Pre-coated   |
|------------------|--|
| Protocol:        | human CD320 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent              |
|                  | assay technology. A monoclonal antibody from mouse specific for CD320 has been precoated       |
|                  | onto 96-well plates. Standards(NSO, S36-Y229) and test samples are added to the wells, a       |
|                  | biotinylated detection polyclonal antibody from goat specific for CD320 is added subsequently  |
|                  | and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was      |
|                  | added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate            |
|                  | TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a        |
|                  | blue color product that changed into yellow after adding acidic stop solution. The density of  |
|                  | yellow is proportional to the human CD320 amount of sample captured in plate.                  |
| Assay Procedure: | Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL,         |
|                  | 312pg/mL, 156pg/mL human CD320 standard solutions into the precoated 96-well plate. Add        |
|                  | 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each      |
|                  | properly diluted sample of human cell culture supernates, serum, plasma(heparin, EDTA) or      |
|                  | urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended |
|                  | that each human CD320 standard solution and each sample be measured in duplicate.              |
| Assay Precision: | Sample 1: n=16, Mean(ng/ml): 1.1, Standard deviation: 0.042, CV(%): 3.8                        |
|                  | Sample 2: n=16, Mean(ng/ml): 3.2, Standard deviation: 0.14, CV(%): 4.5                         |
|                  | Sample 3: n=16, Mean(ng/ml): 6.3, Standard deviation: 0.31, CV(%): 4.9,                        |
|                  | • Sample 1: n=24, Mean(ng/ml): 1.3, Standard deviation: 0.08, CV(%): 6.2                       |
|                  | • Sample 2: n=24, Mean(ng/ml): 3.4, Standard deviation: 0.194, CV(%): 5.7                      |
|                  | Sample 3: n=24, Mean(ng/ml): 5.9, Standard deviation: 0.313, CV(%): 5.3                        |
| Restrictions:    | For Research Use only  |
| Handling         |  |
| Handling Advice: | Avoid multiple freeze-thaw cycles.   |
| Storage:         | -20 °C,4 °C  |
| Storage Comment: | Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles           |
| Expiry Date:     | 12 months  |
|                  |  |

## Human CD320/8D6A ELISA Kit



#### **ELISA**

**Image 1.** Human CD320/8D6A PicoKine ELISA Kit standard curve