

# Product Data Sheet

## TCblR/CD320 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P76798
Synonyms:	CD320 antigen; 8D6 antigen; FDC-signaling molecule 8D6; FDC-SM-8D6; Transcobalamin receptor; TCbIR; CD320
Species:	Mouse
Source:	HEK293
Accession:	Q9Z1P5-1 (M1-G208)
Gene ID:	54219
Molecular Weight:	Approximately 47.7 kDa

PROPERTIES	
FROFERIES	
AA Sequence	MARGGAGRAVALGLVLRLLFGLRTGLEAAPAPAHTRVQVSGSRADSCPTDTFQCLTSGYCVPLSWRCDGDQDCSDGSDEEDCRIESCAQNGQCQPQSALPCSCDNISGCSDVSDKNLNCSRPPCQESELHCILDDVCIPHTWRCDGHPDCLDSSDELSCDTDTEIDKIFQEENATTTRISTTMENETSFRNVTFTSAGDSSRNPSAYG
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized mouse CD320-His at 10 μg/mL (100 μl/well) can bind biotinylated mouse TCN2-His is 0.10-0.24 μg/mL.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

### DESCRIPTION

### Background

TCblR/CD320 Protein, serving as the receptor for transcobalamin saturated with cobalamin (TCbl), assumes a pivotal role in cobalamin uptake. Positioned on the plasma membrane, it is notably expressed on follicular dendritic cells (FDC), facilitating interactions with germinal center B cells. Functioning as a costimulator, TCblR promotes B cell responses to

antigenic stimuli, thereby fostering B cell differentiation and proliferation. Particularly influential in the differentiation of germinal center-B (GC-B) cells into memory B-cells and plasma cells (PC), TCblR engages in collaborative interactions with T-cells and follicular dendritic cells (FDC). Its involvement extends to augmenting the proliferation of PC precursors generated by IL-10. The interaction of CD320 with TCN2, mediated through its LDL-receptor class A domains, underscores its significance in cobalamin homeostasis and cellular processes.

#### Caution: Product has not been fully validated for medical applications. For research use only.

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