

## Recombinant Cynomolgus Monkey Tie-2 Fc Chimera

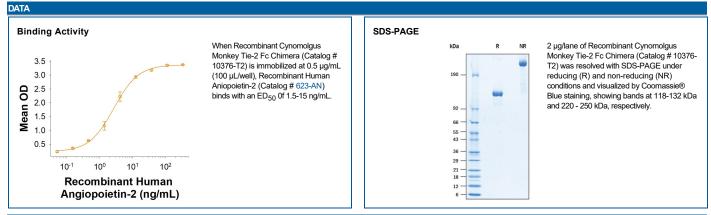
Catalog Number: 10376-T2

DESCRIPTION				
Source	Human embryonic kidney cell, HEK293-derived cynomolgus monkey Tie-2 protein			
	Cynomolgus Monkey Tie-2 (Ala23-Lys745) Accession # XP_005581645.1	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)	
	N-terminus	C-terminus		
N-terminal Sequence Analysis	Ala23			
Structure / Form	Disulfide-linked homodimer			
Predicted Molecular Mass	107 kDa			

SPECIFICATIONS		
SDS-PAGE	118-132 kDa, under reducing conditions	
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Cynomolgus Monkey Tie-2 Fc Chimera (Catalog # 10376-T2) is immobilized at 0.5 μg/mL (100 μL/well), Recombinant Human Angiopoietin-2 (Catalog # 623-AN) binds with an ED <sub>50</sub> of 1.5-15 ng/mL.	
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.	
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.	
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.	

PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 1 mg/mL in PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.	
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.	
	<ul> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> </ul>	
	• 1 month 0 to 0 °C under starile conditions ofter reconstitution	

- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70  $^\circ\text{C}$  under sterile conditions after reconstitution.



## BACKGROUND

Tie-1/Tie (tyrosine kinase with Ig and EGF homology domains 1) and Tie-2/Tek comprise a receptor tyrosine kinase (RTK) subfamily with unique structural characteristics: two immunoglobulin-like domains flanking three epidermal growth factor (EGF)-like domains and followed by three fibronectin type III-like repeats in the extracellular region and a split tyrosine kinase domain in the cytoplasmic region (1). These receptors are expressed primarily on endothelial and hematopoietic progenitor cells and play critical roles in angiogenesis, vasculogenesis and hematopoiesis (2). Cynomolgus Monkey Tie-2 cDNA encodes a 1124 amino acid (aa) residue precursor protein with a 22 residue putative signal peptide, a 723 residue extracellular domain and a 354 residue cytoplasmic domain. Two ligands, angiopoietin-1 (Ang-1) and angiopoietin-2 (Ang-2), which bind Tie-2 with high-affinity have been identified. Ang-2 has been reported to act as an antagonist for Ang-1. Mice engineered to overexpress Ang-2 or to lack Ang-1 or Tie-2 display similar angiogenesis defects (3).

## References:

- 1. Partanen, J. and D.J. Dumont (1999) Curr. Top. Microbiol. Immunol. 237:159.
- 2. Takakura, N. et al. (1998) Immunity 9:677.
- 3. Procopio, W. et al. (1999) J. Biol. Chem. 274:30196.

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