

CD163 Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P700668
Synonyms:	M130; CD163 molecule; CD163; GHI/61; HbSR; MM130; RM3/1; SCARI1; sCD163
Species:	Human
Source:	HEK293
Accession:	Q86VB7-1 (S42-S1045)
Gene ID:	9332
Molecular Weight:	120-140 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μ m filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>CD163 is an acute phase-regulated receptor crucially involved in the clearance and endocytosis of hemoglobin/haptoglobin complexes by macrophages, thereby safeguarding tissues from potential oxidative damage caused by free hemoglobin. Beyond its role in iron uptake and recycling via endocytosis of hemoglobin/haptoglobin, CD163 binds to these complexes in a calcium-dependent and pH-dependent manner. Notably, it exhibits a higher affinity for complexes of hemoglobin and multimeric haptoglobin of HP*1F phenotype compared to those of hemoglobin and dimeric haptoglobin of HP*1S phenotype. CD163 induces a cascade of intracellular signals involving tyrosine kinase-dependent calcium mobilization, inositol triphosphate production, and the secretion of IL6 and CSF1. Isoform 3, in particular, demonstrates enhanced ligand endocytosis and surface expression when expressed in cells. The shedding of CD163 produces a soluble form (sCD163) with potential anti-inflammatory properties, serving as a valuable diagnostic parameter for monitoring macrophage activation in inflammatory conditions.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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