

## Dectin-2/CLEC6A Protein, Human (HEK293, Fc)

Cat. No.:	HY-P74201
Synonyms:	C-type lectin domain family 6 member A; Dectin-2; Clec6a; Clec4n; Clecsf10
Species:	Human
Source:	HEK293
Accession:	Q6EIG7-1/NP_001007034 (T42-L209)
Gene ID:	93978
Molecular Weight:	Approximately 52 kDa

### PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	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

Dectin-2, also known as CLEC6A, functions as a calcium-dependent lectin and pattern recognition receptor (PRR) within the innate immune system, exhibiting specific recognition and binding to alpha-mannans on *C. albicans* hyphae. Upon binding of *C. albicans* alpha-mannans, this receptor complex initiates the phosphorylation of the immunoreceptor tyrosine-based activation motif (ITAM) of FCER1G, thereby activating SYK, CARD9, and NF-kappa-B. This cascade of events drives the maturation of antigen-presenting cells and influences antigen-specific priming of T-cells, favoring the development of effector T-helper 1 and T-helper 17 cell subtypes. In addition to its role in antifungal defense, Dectin-2 recognizes allergens from house dust mites and fungi in a mannose-dependent manner, promoting cysteinyl leukotriene production. Moreover, it plays a role in altering adaptive immune responses by recognizing soluble elements from the eggs of *Schistosoma mansoni*. Associated with FCER1G, Dectin-2 forms a heterodimer with CLEC4D, establishing a pattern recognition receptor against fungal infections. The multifaceted functions of Dectin-2 underscore its importance in immune surveillance and response mechanisms.

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

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