

## Product Data Sheet

## PE-Labeled Siglec-10 Protein, Human (HEK293, His)

| Cat. No.:         | HY-P701304                                  |
|-------------------|---|
| Synonyms:         | SIGLEC10; MGC126774; PRO940; Siglec10; SLG2 |
| Species:          | Human                                       |
| Source:           | HEK293                                      |
| Accession:        | AAI01726.1 (M17-T546)                       |
| Gene ID:          | 89790                                       |
| Molecular Weight: | Approximately 87.43 kDa                     |

| PROPERTIES          |  |
|---------------------|--|
| Appearance          | Solution.  |
| Formulation         | Supplied as a 0.2 $\mu m$ filtered solution of 20 mM Tris, 500 mM NaCl, pH 8.0.  |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.  |
| Reconsititution     | N/A.   |
| Storage & Stability | Stored at -80°C for 1 year, protect from light. 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 | Siglec-10 protein, recognized as a putative adhesion molecule, functions in sialic-acid dependent cellular binding, displaying a preference for alpha-2,3- or alpha-2,6-linked sialic acid. The sialic acid recognition site of Siglec-10 may undergo masking due to cis interactions with sialic acids on the same cell surface. In immune responses, it appears to act as an inhibitory receptor, inducing ligand-induced tyrosine phosphorylation and recruiting cytoplasmic phosphatases via their SH2 domains, blocking signal transduction through dephosphorylation of signaling molecules. Siglec-10 is involved in the negative regulation of B-cell antigen receptor signaling, dependent on PTPN6/SHP-1. In association with CD24, it may participate in the selective suppression of the immune response to danger-associated molecular patterns (DAMPs) such as HMGB1, HSP70, and HSP90. Siglec-10, in collaboration with CD24, regulates the immune response of natural killer (NK) cells and plays a role in the control of autoimmunity. During the initiation of adaptive immune responses by CD8-alpha(+) dendritic cells, Siglec-10 inhibits cross-presentation by impairing the formation of MHC class I-peptide complexes, implicating the recruitment of PTPN6/SHP-1 and promoting phagosomal acidification. Siglec-10 interacts with various proteins, including PTPN6/SHP-1, NCF1, CD24, HMGB1, RIGI, CBL, and PTPN11. |
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## Caution: Product has not been fully validated for medical applications. For research use only.

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