

DESCRIPTION

Species Reactivity	Cynomolgus Monkey
Specificity	Detects Cynomolgus monkey IL-23R in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 1030030
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived Cynomolgus monkey IL-23R Gly24-Asp353 Accession # XP_005543141.1
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

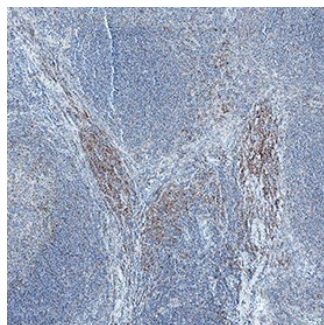
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	8-25 µg/mL	Immersion fixed paraffin-embedded sections of human lymph node

DATA

Immunohistochemistry



IL-23R in Human Lymph Node. IL-23R was detected in immersion fixed paraffin-embedded sections of human lymph node using Mouse Anti-Cynomolgus Monkey IL-23R Monoclonal Antibody (Catalog # MAB106243) at 15 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell surface and cytoplasm in lymphocytes. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin 23 (IL-23) is a heterodimeric cytokine composed of two disulfide-linked subunits, a p19 subunit that is unique to IL-23, and a p40 subunit that is shared with IL-12 (1-5). The functional IL-23 receptor complex consists of two receptor subunits, the IL-12 receptor beta 1 subunit (IL-12R beta 1) and the IL-23-specific receptor subunit (IL-23R) (3). Human IL-23R cDNA encodes a 629 amino acids (aa) type I transmembrane protein with a 23 aa residue signal peptide, a 330 aa residue extracellular domain, a 23 aa residue transmembrane domain and a 253 aa residue cytoplasmic region. IL-23 R shares structural features with the IL-12R beta 2, including an N-terminal Ig-like domain, two cytokine receptor domains and multiple glycosylation sites in the extracellular domain. IL-23R lacks the three extracellular membrane-proximal fibronectin-type III domains present on IL-12R beta 2. IL-23R has a WQPWS sequence in the transmembrane-proximal cytokine receptor domain similar to the cytokine receptor signature WSXWS motif (6). The cytoplasmic region of IL-23R has three potential Src homology 2 domain-binding sites and two potential Stat-binding sites. The gene for human IL-23R is located on human chromosome 1 within 150 kb of IL-12R beta 2. Based on quantitative real-time PCR, human IL-23R mRNA is expressed in a human Th1 and Th0 clone as well as several NK cell lines and clones. Low but detectable levels of IL-23R mRNA is also expressed in EBV-transformed B cells and activated PBMC. IL-23 initiates a signal transduction cascade similar to that of IL-12, and involves Jak2, Tyk2, Stat1, Stat3, Stat4, and Stat5 (2). The Cynomolgus IL-23R shares 96%, 71% and 77% amino acid sequence identity to Human, mouse, and rat IL-23R, respectively.

References:

1. Oppmann, B. *et al.* (2000) *Immunity* **13**:715.
2. Lankford, C.S. and Frucht, D.M. (2003) *J. Leukoc. Biol.* **73**:49.
3. Parham, C. *et al.* (2002) *J. Immunol.* **168**:5699.
4. Belladonna, M.L. *et al.* (2002) *J. Immunol.* **168**:5448.
5. Aggarwal, S. *et al.* (2003) *J. Biol. Chem.* **278**:1910.
6. Schroder, J. *et al.* (2015) *J. Biol. Chem.* **290**:359.