

DESCRIPTION

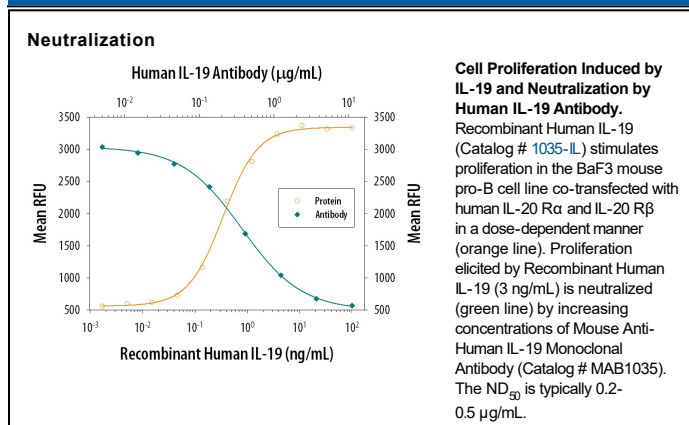
Species Reactivity	Human
Specificity	Detects human IL-19 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 152112
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-19 Leu25-Ala177 Accession # AAN40906
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	Human LPS-treated peripheral blood mononuclear cells fixed with paraformaldehyde and permeabilized with saponin
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize IL-19-induced proliferation in the BaF3 mouse pro-B cell line co-transfected with human IL-20 Rα and IL-20 Rβ. The Neutralization Dose (ND ₅₀) is typically 0.2-0.5 µg/mL in the presence of 3 ng/mL Recombinant Human IL-19.	

DATA



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

Human Interleukin 19 (IL-19) is a member of the IL-10 family of related cytokines. Its gene contains two alternate translation initiation sites, generating precursors of 215 amino acids (aa) and 177 aa, respectively. Both isoforms are processed to 17 kDa, 153 aa mature molecules. IL-19 contains seven helices and is secreted as a 35 kDa monomer. There are two potential N-linked glycosylation sites, and it is likely that the molecule is glycosylated. Mature human IL-19 shares 69% aa sequence identity with the mature mouse homologue. Although mouse IL-19 is active on human cells, human IL-19 is not active on mouse cells. IL-19 expression is limited to activated keratinocytes and monocytes. IL-19 binds a receptor complex consisting of the IL-20 receptor alpha (IL-20 R α , also known as IL-20 R1) and the IL-20 receptor beta (IL-20 R β or IL-20 R2). This receptor complex is also shared by IL-20 and IL-24. Functionally, IL-19 induces IL-6 and TNF- α production by monocytes, and drives T-helper cell differentiation towards a Th2 response (1-5).

References:

1. Gallagher, G. *et al.* (2000) *Genes Immun.* **1**:442.
2. Gallagher, G. *et al.* (2004) *Int. Immunopharmacol.* **4**:615.
3. Laio, Y-C. *et al.* (2002) *J. Immunol.* **169**:4288.
4. Romer, J. *et al.* (2003) *J. Invest. Dermatol.* **121**:1306.
5. Pestka, S. *et al.* (2004) *Annu. Rev. Immunol.* **22**:929.