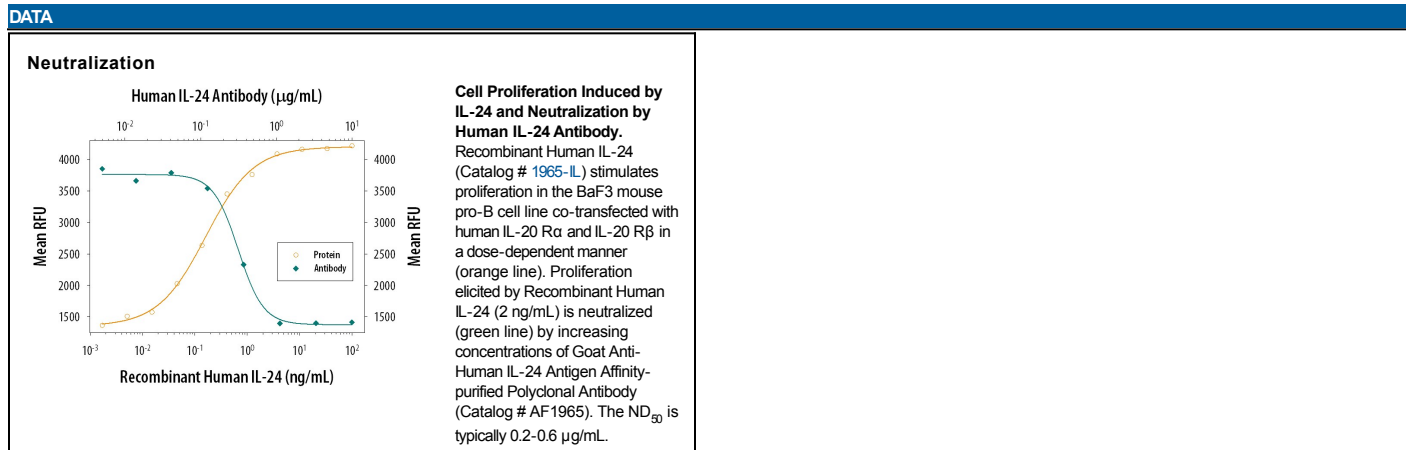


DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-24 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-24 Gln50-Leu206 Accession # Q2YHE5
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
<i>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.</i>		
	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human IL-24 (Catalog # 1965-IL)
<b>Intracellular Staining by Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	Human peripheral blood mononuclear cells fixed with paraformaldehyde and permeabilized with saponin
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Neutralization</b>	Measured by its ability to neutralize IL-24-induced proliferation in the BaF3 mouse pro-B cell line co-transfected with human IL-20 R $\alpha$ and IL-20 R $\beta$ . The Neutralization Dose (ND <sub>50</sub> ) is typically 0.2-0.6 µg/mL in the presence of 2 ng/mL Recombinant Human IL-24.	



PREPARATION AND STORAGE	
<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Interleukin 24 (IL-24), also known as mda-7 (melanoma differentiation associated gene-7), is a member of the IL-10 family of helical cytokines. The IL-24 gene encodes a precursor protein of 207 amino acids that contains a 48 amino acid (aa) signal sequence and an 18 kDa, 158 aa mature segment. There are three potential N-linked glycosylation sites, at least one of which is used. When secreted, IL-24 is a 35-40 kDa phosphorylated glycoprotein that apparently can exist as either a monomer or dimer. It is suggested that glycosylation is essential for activity. Mature human IL-24 shares 69% aa sequence identity with mouse and rat IL-24. Human IL-24 is also active in rodent systems. Cells known to express IL-24 include B cells, CD4<sup>+</sup> T cells, NK cells, lymph node dendritic cells, monocytes, melanocytes, and melanoma cells. Functionally, IL-24 has diverse activities. At low concentrations on monocytes, it induces type I proinflammatory cytokines such as IFN- $\gamma$ , IL-1 $\beta$ , IL-12, and TNF- $\alpha$ . At high concentrations, it is a strong inducer of apoptosis in tumor cells but not normal cells. IL-24 also has anti-angiogenic properties. It directly binds IL-24 receptors on endothelial cells, activating STAT3 and blocking their differentiation. IL-24 binds and signals through two heterodimeric receptor complexes. One complex is the combination of IL-20 R $\alpha$  and IL-20 R $\beta$ , which is shared with IL-19 and IL-20. The second complex is a combination of IL-22 R and IL-20 R $\beta$ , which is shared with IL-20.

**References:**

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