**DESCRIPTION**

Species Reactivity  Human

Specificity  Detects human IL-24 in direct ELISAs and Western blots.

Source  Polyclonal Goat IgG

Purification  Antigen Affinity-purified

Immunogen  Mouse myeloma cell line NS0-derived recombinant human IL-24 Gln50-Leu206

Accession #  Q2YHE5

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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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</thead>
<tbody>
<tr>
<td>Recombinant Human IL-24 (Catalog # 1965-IL)</td>
<td>0.1 μg/mL</td>
</tr>
<tr>
<td>Human peripheral blood mononuclear cells fixed with paraformaldehyde and permeabilized with saponin</td>
<td>2.5 μg/10⁶ cells</td>
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</table>

**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-24-induced proliferation in the BaF3 mouse pro-B cell line co-transfected with human IL-20 Rα and IL-20 Rβ. The Neutralization Dose (ND₅₀) is typically 0.2-0.6 μg/mL in the presence of 2 ng/mL Recombinant Human IL-24.

**DATA**

Cell Proliferation Induced by IL-24 and Neutralization by Human IL-24 Antibody.

Recombinant Human IL-24 (Catalog # 1965-IL) stimulates proliferation in the BaF3 mouse pro-B cell line co-transfected with human IL-20 Rα and IL-20 Rβ in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human IL-24 (2 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-24 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1965). The ND₅₀ is typically 0.2-0.6 μg/mL.

**PREPARATION AND STORAGE**

Reconstitution  Reconstitute at 0.2 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.

- 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.
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+ 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-γ, IL-1β, IL-12, and TNF-α. 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 Rα and IL-20 Rβ, which is shared with IL-19 and IL-20. The second complex is a combination of IL-22 R and IL-20 Rβ, which is shared with IL-20.

References: