

## ChemWhat Technical Data Sheet (TDS)

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<b>Catalog Number:</b>	101-12
<b>Source:</b>	<i>Spodoptera frugiperda</i> , Sf21 (baculovirus)
<b>Molecular Weight:</b>	Apparent molecular mass of 60 kDa in SDS-PAGE under non-reducing conditions, 41 kDa and 29 kDa under reducing conditions, a disulfide-linked heterodimer consisting of the 306 amino acid rHuIL-12 p40 and the 197 amino acid rHuIL-12 p35 subunits.
<b>Quantity:</b>	2µg /10µg /100µg
<b>AA Sequence:</b>	HuIL-12 p40: Ile23 - Ser328; Accession # P29460 HuIL-12 p35: Arg23 - Ser219; Accession # P29459
<b>Purity:</b>	> 97 % by SDS-PAGE.
<b>Biological Activity:</b>	Measured in a cell proliferation assay using PHA-stimulated human T lymphoblasts. The ED <sub>50</sub> for this effect is 0.01-0.05 ng/mL. The specific activity of rHuIL-12 is approximately $1.1 \times 10^4$ units/µg, which is calibrated against rHuIL-12 WHO Standard (NIBSC code: 95/544).
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.2.
<b>Endotoxin:</b>	Less than 1.0 EU/µg of rHuIL-12 as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile PBS to a concentration of 0.1 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20$ °C. Further dilutions should be made in appropriately buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<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>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### *Human Interleukin-12*

IL-12 is a heterodimeric cytokine of disulfide-linked p35 and p40 subunits. It is secreted by monocytes, macrophages, dendritic cells, neutrophils, Langerhans cells, keratinocytes, microglia, and peripheral B cells. In humans, the p40 subunit can also associate with a p19 subunit to form IL-23. IL-12 signals through a receptor complex consisting of IL-12 R beta 1 and IL-12 R beta 2. It promotes Th1 immune responses by inducing IFN-gamma secretion from NK cells, T cells, and macrophages and by enhancing NK cell and T cell mediated cytotoxicity. It also cooperates with IL-18 in the generation of Th1 memory cells.