

PRODUCT DESCRIPTION

Mouse Interleukin 10 (IL-10) is a species-specific pleiotropic cytokine that can exert either immunostimulatory or immunosuppressive effects. As an immunostimulatory cytokine, IL-10 can act on B cells to enhance their viability, proliferation, immunoglobulin secretion and class II MHC expression. IL-10 is also a growth co-stimulator for thymocytes and mast cells, as well as an enhancer of cytotoxic T cell development. As an immunosuppressant, IL-10 can inhibit the accessory function and antigen-presenting capacity of monocytes by downregulating class II MHC expression. It inhibits IFN- γ synthesis and Th1 differentiation in the mouse system. Recombinant mouse IL-10 has a predicted molecular mass of approximately 18 kDa.

SOURCE

A DNA sequence encoding the mature mouse IL-10 protein sequence¹ was expressed in *E. coli*.

PURITY

Purity is greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is <1.0 EU per 1 μ g cytokine, as determined by the LAL method.

ACTIVITY

The biological activity of mouse IL-10 is measured in a cell proliferation assay using the murine mast cell line, MC/9-2.² The ED₅₀ for this effect is typically 0.4 - 1.2 ng/mL.

FORMULATION

Recombinant mouse IL-10 is lyophilized from a 0.2 μ m filtered solution in 20 mM Tris, pH 7.0 containing 50 μ g bovine serum albumin per 1 μ g cytokine.

RECONSTITUTION

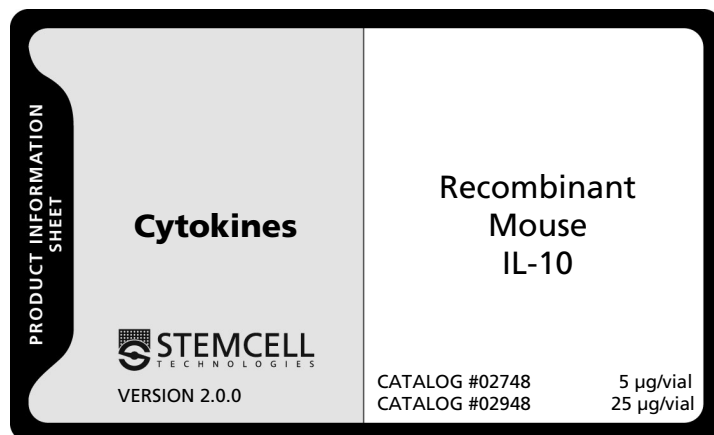
Reconstitute mouse IL-10 at a concentration greater than 1 μ g/mL with sterile phosphate buffered saline (PBS) containing at least 0.1% human or bovine serum albumin.

STABILITY AND STORAGE

Lyophilized mouse IL-10 is stable at -20°C to -70°C for up to twelve months from date of receipt.

Reconstituted mouse IL-10 can be stored under sterile conditions at 2 - 8°C for one month, or at -20°C to -70°C (in a manual defrost freezer) for three months without detectable loss of activity.

Avoid repeated freezing and thawing.



REFERENCES

1. Moore KW, Vieira P, Fiorentino DF, Trounstein ML, Khan TA, Mosmann TR: Homology of cytokine synthesis inhibitory factor (IL-10) to the Epstein-Barr virus gene BCRF1. *Science* 248: 1230-1234, 1990
2. Thompson-Snipes L, Dhar V, Bond MV, Mosmann TR, Moore KW, Rennick DM: Interleukin 10: A novel stimulatory factor for mast cells and their progenitors. *J Exp Med* 173: 507-510, 1991