

TECHNICAL DATA SHEET

# Recombinant Human IL-12/IL-23 p40 (Carrier-free)

Catalog Number: 21-7149

## RPx-Pro™ Recombinant Protein

### PRODUCT INFORMATION

#### CONTENTS

Recombinant Human IL-12/IL-23 p40 (Carrier-free)

#### DESCRIPTION

IL-12 is a heterodimeric pro-inflammatory cytokine composed of two subunits encoded by different genes, IL-12A (p35) and IL-12B (p40), which by themselves have no activity. IL-12 is a strong inflammatory mediator produced by activated macrophages, monocytes and dendritic cells and appears to be important in T cell maturation and NK cell activity. While heterodimeric IL-12 is detected in low amounts, the p40 subunit is produced in excess. This may be because the p40 subunit also binds to p19 to form IL-23, which acts on CD4+ Th1 effector cells and plays an important role in later stages of infection. Additionally, p40 may form an IL-12 p80 homodimer which acts as an antagonist for IL-12 and IL-23 by competing for their receptors.

#### MOLECULAR MASS

Recombinant Human IL-12/IL-23 p40 consists of 306 amino acids and is a 40 kDa protein.

#### AMINO ACID SEQUENCE

p40 Subunit: IWELKKDVYV VELDWPDPAP GEMVLTCDT PEEDGITWTL DQSSEVLGSG KTLTIQVKEF GDAGQYTCHK GGEVLSHSL LLHKKEDGIW STDILKDQKE PKNKTFLRCE AKNYSGRFTC WWLTTISTDL TFSVKSSRGS SDPQGVTGCA ATLSAERVRG DNKEYEYSVE CQEDSACPAA EESLPIEVMV DAVHKLKYEN YTSSFFIRDI IKPDPKLNQ LKPLKNSRQV EVSWEYPDTW STPHSYFSLT FCVQVQGKSK REKKDRVFTD KTSATVICRK NASISVRAQD RYYSSSWSEW ASVPCS

#### SOURCE

CHO cells

#### APPLICATIONS

Bioassay

#### PURITY

98 %

#### STORAGE

-20°C

#### PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

#### ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

#### AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

#### CROSS REACTIVITY

#### BIOACTIVITY

No data available at this time.

#### RESEARCH AREAS

Immune System, Angiogenesis & Cardiovascular, Inflammation, Cancer, Differentiation, Allergy, Stem Cells, Transplantation

#### RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

#### REFERENCES

Gee K, Guzzo C, Che Mat NF, Ma W and Kumar A. 2009. Inflamm Allergy Drug Targets. 8(1): 40-52. Brombacher F, Kastelein RA and Alber G. Trends Immunol. 2003. 24(4): 207-212. Oppmann B, Lesley R, Blom B, Timans JC, Xu Y, Hunte B, Vega F, Yu N, Wang J, Singh K, et al. Immunity. 2000. 13(5): 715-725. Holscher C. 2004. Med Microbiol Immunol. 193(1): 1-17.

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