



cell sciences®

ultra pure cytokines

Produced in barley, these proteins are animal, bacterial, and viral free, and are ultra pure, with extremely low endotoxin.



Cell Sciences offers innovative, unique growth factors and hard-to-produce recombinant proteins, bypassing the use of bacterial or animal cell systems. These ultra pure proteins contain no contamination from other growth factors and negligible amounts of endotoxin.

Background: barley endosperm

The host organism, barley, with its specialized endosperm storage tissue, provides many unique features including proficient protein machinery, with eukaryotic folding, and a distinct route for long-term protein protection and storage. A biochemically inert environment, void of endotoxins, low protease activity and secondary metabolite content, and a simple protein profile, aid in downstream processing. Barley has also a G.R.A.S. (generally recognized as safe) status from the FDA.

Cell Sciences ultra pure growth factors and cytokines

are produced for use in basic and applied medical scientific research, cell culture media and diagnostics.

- ◆ serum free
- ◆ animal, bacterial & viral free
- ◆ extremely low endotoxin (<0.005 ng/ug)
- ◆ highly biologically active
- ◆ easier regulatory clearance
- ◆ perfect for cell culture, drug development, stem cell research, animal research
- ◆ for use in all *in vitro* cellular studies
- ◆ for use in all *in vivo* animal studies

Ultra pure cytokines & growth factors

- FGF1, human
- FGF2, human
- FLT3 ligand, human
- GCSF, human
- IFNA2, human
- IFN gamma, human
- IGF1, human
- IL1-alpha, human
- IL2, human
- IL3, human
- IL4, human
- IL5, human
- IL6, human
- IL7, human
- IL9, human
- IL16, human
- IL22, human
- KGF, human
- M-CSF, human
- NRG1/HRG beta 2, human
- SCF, mouse
- SF20/IL25, human
- TNF-alpha, human
- TNF-beta, human
- VEGF121, human
- VEGF165, human

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