

# NEUROMICS



## ISOKine™ Recombinant Mouse LIF

## Datasheet

**Catalog Number:** PR80000

**Product Type:** Recombinant Protein

**Source:** ISOKine™ recombinant mouse LIF is produced in the endosperm tissue of barley grain (*Hordeum vulgare*), that exhibits up to 50 times less protease activity than *E.coli* or mammalian cells. **Barley seed is void of any human or animal viral contaminants that could jeopardize your cell culture.**

**Description/Molecular Mass:** Recombinant mouse LIF contains 188 amino acids and a 16 a.a. Histidine-based tag for a total length of 204 a.a. and has a predicted molecular mass of 22.8 kDa. As a result of glycosylation, the recombinant protein migrates with an apparent molecular mass of 28-30 kDa in SDS-PAGE.

**Activity:** Each batch is tested for bioactivity and verified to have comparable activity to a commercial source. The bioactivity of ISOKine™ murine LIF was determined by its ability to induce differentiation of murine M1 myeloid leukemia cells. The ED<sub>50</sub> value for this effect is typically 1 ng/ml, corresponding to a specific activity of > 5 x 10<sup>7</sup> U/mg (where 50 U is defined as the amount of mLIF required to induce differentiation of 50% of M1 cells). The activity is comparable to mLIF from other commercial sources. We recommend that the optimal concentration for each specific application be determined by an initial dose-response assay.

**Endotoxin Level:** Endotoxin level is less than 0.005ng per µg of ISOKine™ product (0.05EU/µg) as measured by turbidimetric kinetic assay.\* \* Ref. Associates of Cape Cod Industries, Deacon Park, Knowsley, Liverpool, UK

**MAT Assay:** Purified ISOKine™ product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using Human 10-plex Cytokine Assay measuring IL-6, TNF-alpha and IL-1beta induction.\*\*\*\* \*\* Ref. The Blood Bank, University Hospital of Iceland, Reykjavik, Iceland

**Purity:** Greater than 95% by SDS-PAGE gel analysis

**Format:** Lyophilized . PBS, pH 7.2, sterile filtered.

**Reconstitution:** Always centrifuge the vial before opening. It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. For long term storage it recommended to add a carrier protein (0.1% HSA or BSA).

**Storage:** 12 months from date of receipt, -20 to 70°C as supplied.  
1 month, 2 to 8 °C under sterile conditions after reconstitution.  
3 months, -20 to 70 °C under sterile conditions after reconstitution.  
**Avoid multiple freeze-thaw cycles.**

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*FOR RESEARCH USE ONLY*

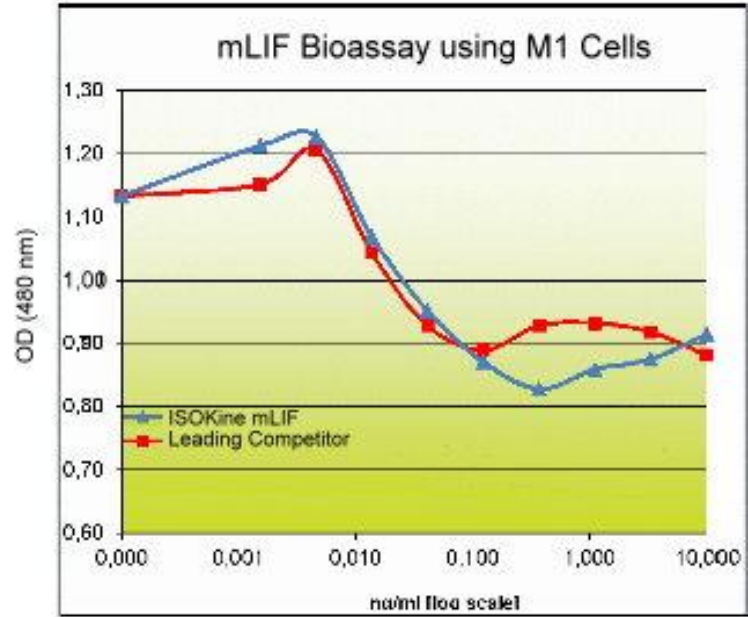
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Image: ISOKine<sup>1M</sup> vs. leading competitor.



Images: ES Cells with LIF, embryoid bodies and ES Cells without LIF.



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