

Recombinant Porcine Interleukin-1 beta

Information

Gene ID	397122
Accession #	P26889
Alternate Names	IL-1 beta
Source	Escherichia coli.
M.Wt	Approximately 17.6 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
AA Sequence	ANVQSMECKL QDKDHKSLVL AGPHMLKALH LLTGDLKREV VFCMSFVQGD DSNNKIPVTL GIKGKNLYLS CVMKDNTPTL QLEDIDPKRY PKRDMEKRFV FYKTEIKNRV EFESALYPNW YISTSQAEQK PVFLGNSKGR QDITDFTMEV LSP
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, 3 % trehalose.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED as determined by a cell proliferation assay using murine D10S cells is less than 5.0 ng/ml, corresponding to a specific activity of > 2.0 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10µg	100µg	500µg
Recombinant Porcine Interleukin-1 beta	10µg	100µg	500µg

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- 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

Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rPoIL-1 β as determined by LAL method.

Description

Interleukin-1 beta (IL-1 β) is a non-secreted proinflammatory cytokine produced mainly by activated macrophages, as well as neutrophils, epithelial cells, and endothelial cells. It possesses metabolic, physiological, haematopoietic activities, and plays one of the central roles in the regulation of the immune responses. Both IL-1 α and IL-1 β binds to the same receptor and has similar but not identical biological properties. Recombinant porcine interleukin-1 beta is a 17 kDa protein containing 153 amino acid residues and it shares 63 % - 70 % a.a. sequence identity with canine, cotton rat, equine, feline, human, mouse, rat, and rhesus IL1 β .

Reference

1. Bankers-Fulbright, J.L., K.R. Kalli, and D.J. McKean. 1996. Life Sci, 59: 61-83
2. Dinarello, C.A. 1997. Semin Oncol, 24: S9-81-S9-93
3. Martinon, F., and J. Tschopp. 2007. Cell Death Differ, 14: 10-22
4. Auron, P.E., A.C. Webb, L.J. Rosenwasser, et al. 1984. Proc Natl Acad Sci U S A, 81: 7907-11.

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