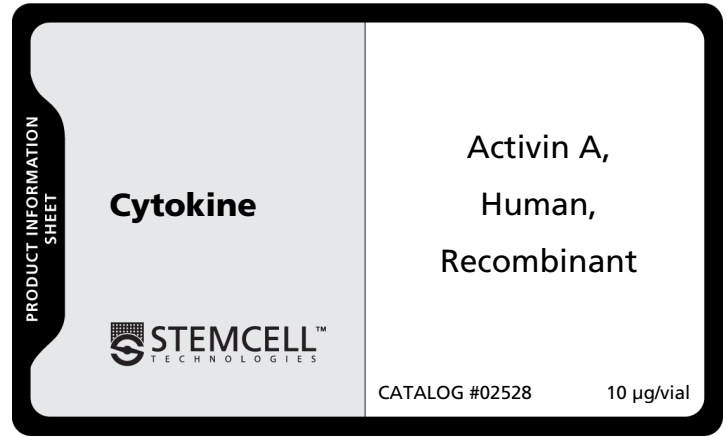


PRODUCT DESCRIPTION

Activin A is a member of the transforming growth factor β (TGF- β) superfamily. It has a wide range of biological activities including driving endoderm and mesoderm induction and regulating the differentiation of many cell types. Activin A has also been shown to support maintenance of human embryonic stem cells in the undifferentiated state.¹ It shares receptors with the ligand nodal and activates the same downstream SMAD pathway as TGF- β . Recombinant human mature Activin A is a disulfide-linked homodimer of two 116 amino acid residue β A subunits with a molecular weight of 13 kDa.



SOURCE

Recombinant protein expressed in Chinese Hamster Ovary (CHO) cells.

PURITY

Greater than 95% as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is less than 1.0 EU/ μ g of Activin A as assayed by the Limulus Amoebocyte Lysate (LAL) method.

ACTIVITY

The ED₅₀ of Activin A, as measured by its ability to induce hemoglobin expression in K562 cells, is typically 0.2 - 1.2 ng/mL.

FORMULATION

Lyophilized from a 0.2 μ m filtered solution in Acetonitrile plus TFA with BSA as a carrier protein.

RECONSTITUTION

Reconstitute to a concentration of 50 μ g/mL with sterile phosphate buffered saline (PBS).

STABILITY AND STORAGE

Product stable at -20°C for 12 months from date of receipt.

Once reconstituted, product can be aliquoted. Reconstituted product is stable at 2 - 8°C for one month or at -20°C for 3 months. Avoid additional freeze-thaw cycles.

REFERENCES

1. Xiao L et al. Activin A maintains self-renewal and regulates fibroblast growth factor, Wnt, and bone morphogenic protein pathways in human embryonic stem cells. *Stem Cells*; 24(6):1476-86, 2006.

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