

Recombinant mouse/rat activin A PLUS™ protein (Qk014)



Type: Stem cells

Available for purchase: Unit Size (µg): 25, 50, 100, 500, 1000

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Product Information

Mouse/rat recombinant activin A PLUS™ protein is an optimized biologically active truncation of the mature domain of activin A protein. The EC50 and activity in [stem cell culture](#) of activin A PLUS™ is equivalent to the full mature domain activin A.

High purity 24 kDa dimer comprising truncated mature domain of activin A protein, [animal origin-free](#) (AOF) and carrier-protein free (CF). Recombinant activin A PLUS™ is designed to be manufactured at scale for cost-effective, large-scale stem cell culture applications.

Alternative protein names

ActA, Activin beta-A chain, Erythroid differentiation protein (EDP), Follicle-Stimulating Hormone (FSH) releasing protein (FRP), INHBA, Inhibin beta A, Inhibin beta 1, Qk14

Molecular weight

24 kDa (dimer)

Protein Uniprot number

High purity optimized mature domain of activin A (Uniprot: Q04998) – particularly suitable for bulk and scale-up stem cell culture applications

Species reactivity

- mouse
- rat
- species similarity:
- human - 100%
- bovine - 100%
- porcine - 100%

Product Information

- >98%, by SDS-PAGE quantitative densitometry
- Expressed in *E. coli*
- Animal origin-free (AOF) and carrier protein-free
- Manufactured in our Cambridge, UK laboratories
- Lyophilized from acetonitrile, TFA

Reconstitution instructions

- Resuspend in 10 mM HCl (Reconstitution solution A) at >50 µg/ml

Featured applications

- Large scale stem cell expansion
- Expansion and differentiation of mouse pluripotent stem cells

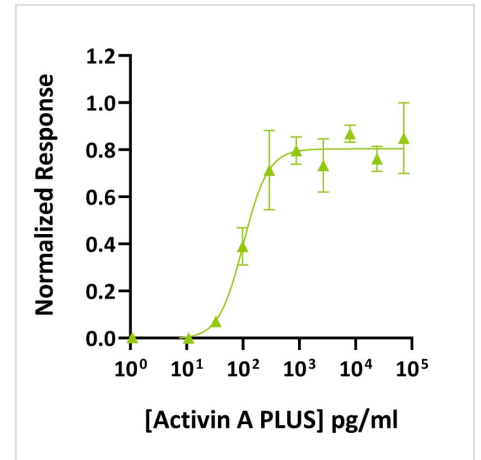
Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein

Scientific Information

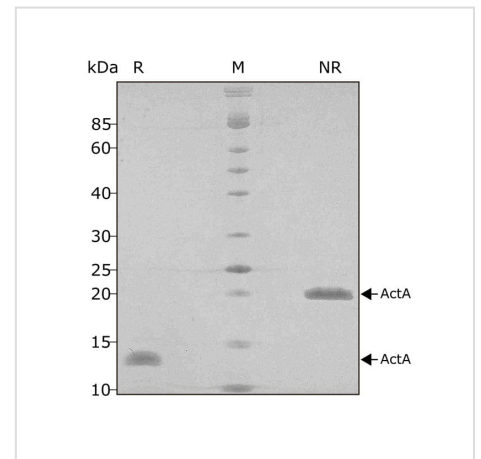
Bioactivity

Activin A PLUS™ activity was determined using an activin-responsive firefly luciferase reporter in HEK293T cells. (in triplicate) with a serial dilution of activin A for 6 hours. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity. EC50 = 0.103 ng/ml (4.24 pM). EC50 is within the expected range of 6 ± 2 pM. Data from lot #104344.



Purity

Activin A PLUS™ migrates as a single band at 24 kDa in non-reducing (NR) and 13 kDa as a single monomeric species upon reduction (R). No contaminating protein bands are visible. Purified recombinant protein (7 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptoethanol, R) and non-reduced conditions (NR) and stained with Coomassie Brilliant Blue R250. Data from lot #010.



Original product page: <https://ryan.calliope-alpha.ts.net/product/recombinant-mouse-rat-activin-a-plus-protein-qk014/>

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