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Recombinant bovine/porcine follistatin-resistant activin A (FRACTA) protein (Qk110-FG)



Type: Food grade proteins

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

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Product Information

Follistatin-resistant activin A (FRACTA) protein has been engineered to prevent binding to the natural inhibitor, follistatin. Activin A activity is regulated in vivo by follistatin, a high-affinity inhibitor; follistatin accumulates in stem cell culture, where it inhibits activin A.

High quality food grade recombinant follistatin-resistant activin A protein (FRACTA) has equivalent bioactivity to wild-type activin A (Qk108-FG) but does not bind follistatin so is resistant to feedback inhibition. High purity 26 kDa dimer comprising engineered mature domain of activin A protein, animal origin-free (AOF) and carrier-protein free (CF). This specialized activin A has been developed in Marko Hyvönen's group in the University of Cambridge.

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

Molecular weight

26 kDa (dimer)

Protein Uniprot number

High purity engineered follistatin-resistant activin A (FRACTA) protein

Species reactivity

- bovine
- porcine

Product Information

- High quality food grade recombinant protein
- >98%, by SDS-PAGE quantitative densitometry
- Animal origin-free (AOF) and carrier protein-free
- Expressed in *E. coli*
- Manufactured in the UK under a food manufacturing HACCP regime
- Lyophilized from acetonitrile, TFA

Reconstitution instructions

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

Featured applications

- Cellular agriculture and cultivated meat cell culture media optimization
- Cellular agriculture process development
- Induced pluripotent stem cell culture and maintenance

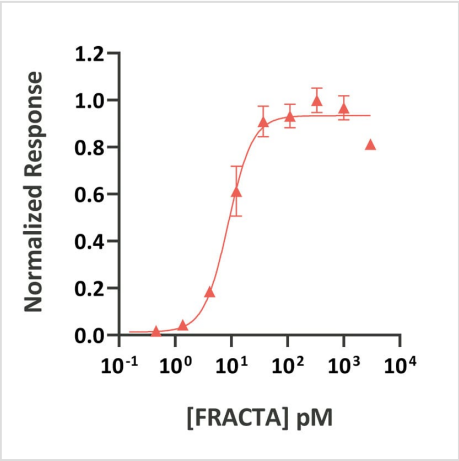
Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein
- Full raw materials traceability, allergen analysis, CoO, CoA, beta-lactam-free and animal origin-free certification available

Scientific Information

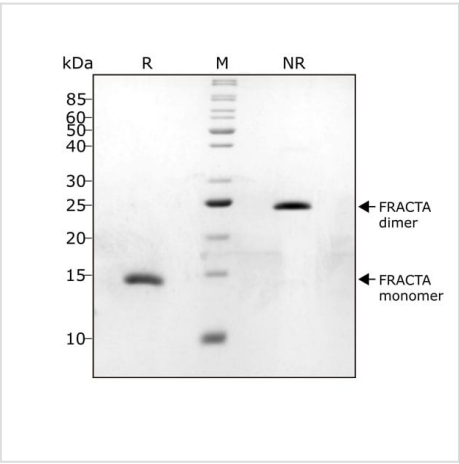
Bioactivity

Follistatin-resistant activin A (FRACTA) activity was determined using the activin-responsive firefly luciferase reporter assay in transiently transfected HEK293T cells. Cells were treated in triplicate with a serial dilution of FRACTA. Firefly luciferase activity was measured and normalized. EC50 = 0.23 ng/ml (8.8 pM).



Purity

FRACTA 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 (1 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptothanol, R) and non-reduced conditions (NR) and stained with Coomassie Brilliant Blue R250.



Original product page: https://qkine.com/product/recombinant-bovine-porcine-follistatin-resistant-activin-a-protein-qk110-fg/

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