

## Recombinant porcine TGF- $\beta$ 3 protein (Qk084-FG)



**Type:** Food grade proteins

**Available for purchase:** Unit Size ( $\mu$ g): 25, 50, 100, 500, 1000

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### Product Information

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Porcine TGF- $\beta$ 3 protein is a member of the [transforming growth factor family](#), a family involved in regulating cell survival, proliferation and differentiation.

Qkine is dedicated to supporting the [cellular agriculture](#) industry by manufacturing high-purity and bioactive growth factors that are species-specific to cultivated cultures. Porcine TGF- $\beta$ 3 is used in cultivated meat pluripotent stem cell maintenance medias, such as [Beefy9](#) media.

Porcine high quality food grade TGF beta 3 is a protein dimer that is animal-origin free (AOF) and carrier-protein free (CF).

#### Alternative protein names

Transforming growth factor beta-3, TGF-b3, TGFB3, TGF B3, Prepro-transforming growth factor beta-3, Arrhythmogenic right ventricular dysplasia 1 (ARVD, ARVD1)

#### Molecular weight

25 kDa (dimer)

#### Protein Uniprot number

Highly pure porcine protein (UniProt: P15203)

#### Species reactivity

- 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**

- Maintenance and expansion of porcine iPSC, ESC and primary cells
- iPSC-derived mesoderm differentiation
- Cellular agriculture and cultivated meat cell culture media optimization

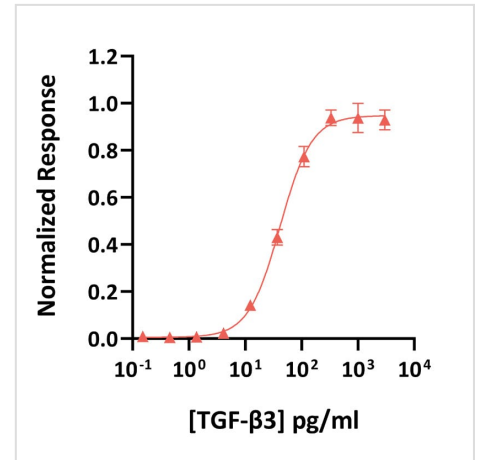
## **Further quality assays**

- 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

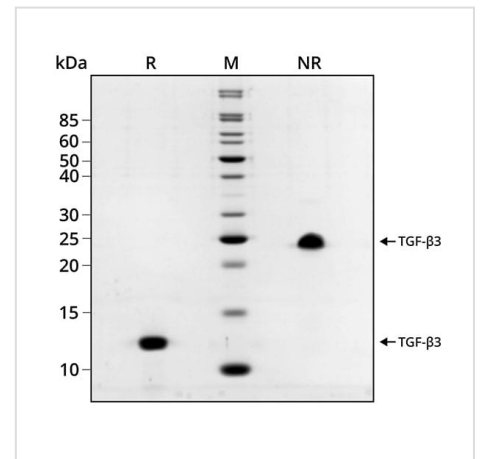
### Bioactivity

Recombinant porcine TGF- $\beta$ 3 activity is determined using a TGF- $\beta$ 3-responsive luciferase assay. Transfected HEK293 cells are treated in triplicate with a serial dilution of porcine TGF- $\beta$ 3 for 6 hours. Firefly activity is measured and normalised to the control Renilla luciferase activity. EC50 = 41 pg/ml (1.6 pM).



### Purity

Recombinant porcine TGF- $\beta$ 3 migrates at approximately 12.6 kDa (monomer) in reduced (R) and at approximately 25 kDa (dimer) in non-reduced (NR) conditions. No contaminating protein bands are present. The purified recombinant protein (3  $\mu$ g) was resolved using 15% w/v SDS-PAGE in reduced (+ $\beta$ -mercaptoethanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250



**Original product page:** <https://qkine.com/product/recombinant-porcine-tgf-%ce%b23-protein-qk084-fg/>

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