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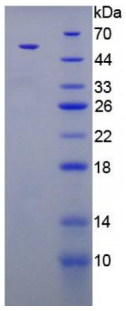
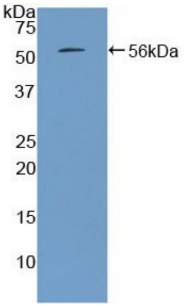
DATASHEET

Rat Parathyroid Hormone (PTH) Protein (Active)

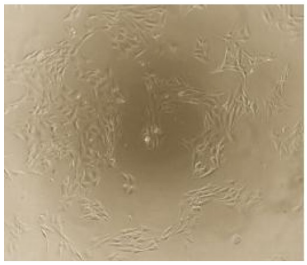
Catalogue No.:abx651429



SDS-PAGE analysis of active recombinant Rat PTH.

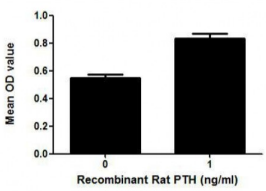


WB analysis of recombinant Rat PTH, using PTH antibody (abx101798).



Cell proliferation analysis of U2OS cells cultured in DMEM after stimulation with PTH (1 ng/ml) for 48 hours.

Cell proliferation analysis of unstimulated U2OS cells cultued in DMEM for 48 hours.



Cell proliferation of U2OS cells after stimulation with PTH.

Parathyroid Hormone (PTH) Protein (Active) is an active protein from Rat.

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Target: Parathyroid Hormone (PTH)

Origin: Rat

Purity: > 92%

Form: Lyophilized

Reconstitution: Reconstitute in 20 mM Tris, 150 mM NaCl, pH 8.0, to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Conjugation: Unconjugated

Storage: Store at 2-8 °C for up to one month. Store at -80 °C for up to one year. Avoid repeated freeze/thaw cycles.

Molecular Weight: Calculated MW: 59.4 kDa
Observed MW (SDS-PAGE): 59 kDa

Swiss Prot: P04089

Sequence Fragment: Ala32-Gln115

Sequence: AVSEIQLMH NLGKHLASVE RMQWLRKKLQ DVHNFVSLGV QMAAREGSYQ RPTKKEENVL VDGNSKSLGE GDKADVDVLV KAKSQ

Tag: Two N-terminal tags, His-tag and MBP-tag

Activity: Active

Biological Activity: Parathyroid Hormone (PTH) is a hormone secreted by the parathyroid glands, and is important in bone remodeling. Osteoblast-like cell lines that express Parathyroid Hormone 1 Receptor (PTHR1), such as ROS 17/2.8, UMR106, SaOS, U2OS, and MG63, show increased proliferation when exposed to PTH. Rat PTH shares similarities with human PTH; the homology based on amino acid sequence is 71.3%. Therefore, a proliferation assay of recombinant Rat PTH was conducted using U2OS cells. Briefly, U2OS cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of PTH. After incubation for 48 h, cells were observed using an inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 µl of CCK-8 solution was added to each well of the plate, which was incubated for 1-4 hours at 37°C. The absorbance was then measured at 450 nm using a microplate reader. Cell proliferation of U2OS cells after incubation with PTH for 48 h observed by inverted microscope is shown in Figure 3 and Figure 4. Cell viability assessed by CCK-8 is shown in Figure 5, where it can be seen that Rat PTH increased cell viability of U2OS cells.

Concentration: Prior to lyophilization: 200 µg/ml

Buffer: Prior to lyophilization: 20 mM Tris, 150 mM NaCl, pH 8.0, containing 1 mM EDTA, 1 mM DTT, 0.01% Sarcosyl, 5% Trehalose and Proclin-300.

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Note: This product is for research use only.