Datasheet for ABIN6239833

PTH Protein (AA 32-115) (MBP tag,His tag)

3 Images

Go to Product page

Overview

Quantity:	50 µg
Target:	PTH
Protein Characteristics:	AA 32-115
Origin:	Rat
Source:	Escherichia coli (E. coli)
Biological Activity:	Active
Purification tag / Conjugate:	This PTH protein is labelled with MBP tag,His tag.
Application:	Activity Assay (AcA), Cell Culture (CC)

Product Details

Characteristics:	Tag location: Two N-terminal Tags, His-tag and MBP-tag
Purity:	> 90 %
Biological Activity Comment:	PTH (Parathyroid hormone) is a hormone secreted by the parathyroid glands that is important in bone remodeling. As reported, osteoblast-like cell lines, such as ROS 17/2.8, UMR106, SaOS, U2OS, MG63, that exhibit PTHR1, respond with increased proliferation to PTH. Rat PTH shares similarities with human PTH in amino acid sequence with the identity of 71.3%. Thus, a proliferation assay of rat recombinant 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 incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10µL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was

Product Details

	measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of U2OS cells after incubation with PTH for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant PTH for 48h. The result was shown in Figure 2. It was obvious that PTH increased cell viability of U2OS cells.

Target Details

Target:	PTH
Abstract:	PTH Products
Target Type:	Hormone
Background:	Alternative Names: iPTH, Intact Parathyroid Hormone, Parathormone, Parathyrin
Molecular Weight:	59kDa
UniProt:	P04089
Pathways:	cAMP Metabolic Process, Regulation of Carbohydrate Metabolic Process

Application Details

Application Notes:	Isoelectric Point: 5.8
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	20 mM Tris, 150 mM NaCl, pH 8.0, containing 1 mM EDTA, 1 mM DTT, 0.01 % SKL, 5 % Trehalose and Proclin300.
Preservative:	Dithiothreitol (DTT), Other preservative, ProClin
Precaution of Use:	This product contains ProClin and Dithiothreitol (DTT): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

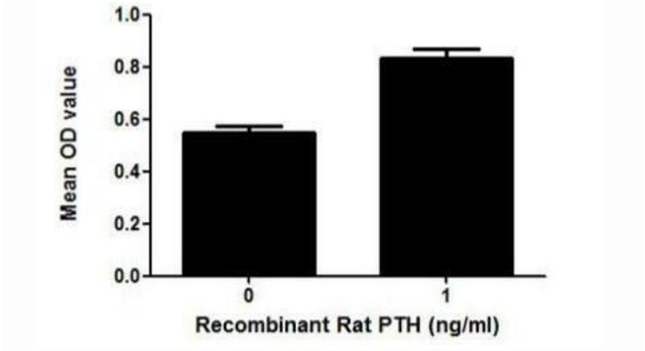

Figure 2. Cell proliferation of U2OS cells after stimulated with PTH.

Image 1. PTH (Parathyroid hormone) is a hormone secreted by the parathyroid glands that is important in bone remodeling. As reported, osteoblast-like cell lines, such as ROS 17/2.8, UMR106, SaOS, U2OS, MG63, that exhibit PTHR1, respond with increased proliferation to PTH. Rat PTH shares similarities with human PTH in amino acid sequence with the identity of 71.3%. Thus, a proliferation assay of rat recombinant 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 incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10μL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of U2OS cells after incubation with PTH for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant PTH for 48h. The result was shown in Figure 2. It was obvious that PTH increased cell viability of U2OS cells.

Figure 1. Cell proliferation of U2OS cells after stimulated with PTH.

(A) U2OS cells cultured in DMEM, stimulated with 1ng/mL PTH for 48h;

(B) Unstimulated U2OS cells cultured in DMEM for 48h.

Image 2.

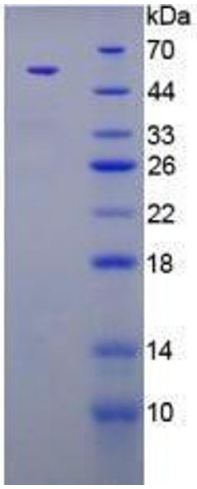

Image 3.