# **PRODUCT INFORMATION**

Expression system HEK293

**Domain** 28-133aa

**UniProt No.** P61366

NCBI Accession No. NP\_937827.1

Alternative Names Osteocrin, MUSCLIN, OSTN

# **PRODUCT SPECIFICATION**

Molecular Weight 12.5kDa (112aa)

**Concentration** 0.5mg/ml (determined by Bradford assay)

#### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

**Purity** > 95% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

**Biological Activity** Measured by its binding ability in a functional ELISA with Human NPRC. The ED50 range  $\leq$  20 ng/ml.

# Tag

His-Tag

Application SDS-PAGE, Bioactivity

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# BACKGROUND

#### Description

Osteocrin, also known as Musclin, shows a well conserved homology with members of the natriuretic peptide



(NP) family. It is a secreted protein that is expressed in muscle and bone. Based on similarities with NPs, Osteocrin could interact with the NP clearance receptors, importantly increasing CNP which has been shown to stimulate endochondral ossification and elongate bones. It is represents a novel, unique vitamin D-regulated bone-specific. Recombinant human Osteocrin, fused to His-tag at C-terminus, was expressed in HEK 293 cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

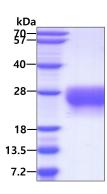
VDVTTTEAFD SGVIDVQSTP TVREEKSATD LTAKLLLLDE LVSLENDVIE TKKKRSFSGF GSPLDRLSAG SVDHKGKQRK VVDHPKRRFG IPMDRIGRNR LSNSRG<HHHH HH>

#### **General References**

Thomas, G., et al, (2003) J. Biol. Chem. 278:50563-50571. Nishizawa H., et al, (2004) J Biol Chem. 279:19391-19395. Pierre Moffatt., et al, (2007) J Biol Chem. 282:36454-36462.

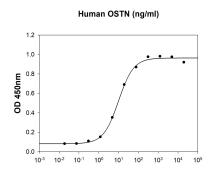
## DATA

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

## **Biological Activity**



Human NPRC is coated at 2 ug/ml (100 ul/well) can bind Human OSTN. The ED50 range  $\leq$  20 ng/ml.