Differentiation inducing peptide W9

W9 peptide(WP9QY) is circulated peptide constructed by 9 amino acids. W9 peptide is known to abrogate osteoclast differentiation. In our study W9 has an anabolic effect on cortical bone in wild-type mice. W9 peptide increased the production of cartilage matrix. W9 peptide enhanced ALP activity in MC3T3-E1 cells and mineralization.
This product is prepared as peptide solutions induced specific activities. W9 peptide solution is directly applicable to in vitro assay.

Item	Catalog number	Packing size
Differentiation inducing peptide W9	47025000	1 mg × 2

*For bulk inquiry, please contact the sales office at your region.
*For research purpose only. Not for therapeutic or diagnostic use.

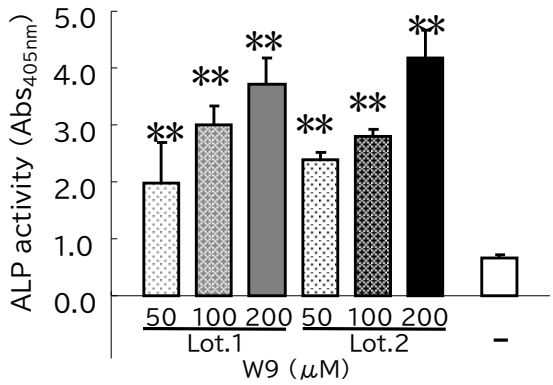
Specifications

Differentiation inducing peptide W9

Types of products	: peptide solution
Buffer	: PBS (-)
Storage	: Frozen (< -70℃)
Concentration	: > 10mg/mL
Specificy	: ALP activity in MC3T3-E1 cells
Endotoxin Level	: < 0.1 EU/μg
Content	: 1 mg × 2

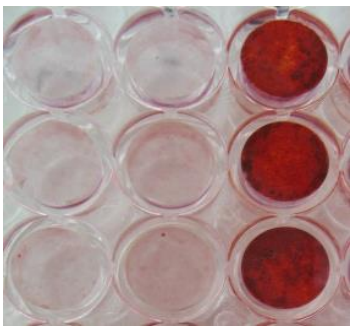
Support For Research
OYC laboratory research

A)



MC3T3-E1 cells were cultured with 50-200 μM W9 for 5 days to measure the alkaline phosphatase (ALP) activity. ALP activity was measured by the PNPP assay and expressed as the mean±SD.
**: $p < 0.01$ vs. control (Dunnett's test)

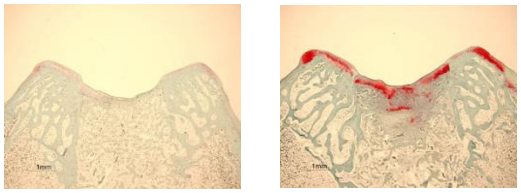
B)



- negative peptide W9 peptide

MC3T3-E1 cells were cultured in the osteoblastic differential media with 200 mM W9 and negative control peptide for 21 days. Mineralization of MC3T3-E1 cells was evaluated by alizarin red staining.

C)



Vehicle W9

Cartilage stained in Saflanin O

Cartilage defects in rabbits (JW 25 weeks-old male) filled with collagen scaffolds. After 2 weeks, W9 peptide solution (5 mg) was injected intraarticular once per week for 2 weeks. Histological grading of the repaired tissue was evaluated by chondrocyte specific staining.

References

1. Takasaki W, et al. Nature Biotech. (1997) 15, 1266-1270.
2. Aoki K, et al. J Clinical Invest. (2006) 116, 1525-1534.
3. Patents WO2008/150025, WO2010/038610

Please contact the one that best suits your need.

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