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Product Information

Anti-OSTF1 (C-terminal)
produced in rabbit, affinity isolated antibody

CatalogNumber **SAB4200323**

Product Description

Anti-OSTF1 (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to the C- terminal region of human OSTF1 (Gene ID: 26578) conjugated to KLH. The corresponding sequence differs by two or three amino acids in mouse or rat, respectively. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-OSTF1 (C-terminal) recognizes human OSTF1. The antibody may be used in several immunochemical techniques including immunoblotting (~26 kDa). Detection of the OSTF1 band by immunoblotting is specifically inhibited by the immunizing peptide.

The osteoclast (OCL) is the primary bone-resorbing cell responsible for degradation of bone matrix.[1] Factors produced by OCL play an important role in regulating OCL formation and activity. Osteoclast-stimulating factor (OSF or OSTF1) is highly expressed in OCL. Indirectly, it enhances OCL formation and bone resorption through a cellular signal transduction cascade by possibly interacting with c-Src or other c-Src-related proteins. OSF contains a short proline-rich N-terminal region, an SH3 domain, three ankyrin repeats and an aspartate-rich C-terminal region, suggesting that it is potentially involved in protein–protein interactions.[3] Its SH3 domain was found to interact with the 40 kDa spinal muscular atrophy disease determining gene product, survival motor neuron (SMN), to stimulate OCL formation, indicating that OSF SH3–SMN interaction may play an important role in congenital bone fractures associated with type I spinal muscular atrophy disease.[4] Inhibition of the interaction of the OSF-SH3 domain with its protein partners might lead to reduced bone resorption by OCL and thus prevent the bone loss that is associated with many bone diseases, such as periodontal disease, osteoporosis, estrogen deficiency, Paget's disease, inflammatory bone loss, bone malignancy and hyperparathyroidism.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 1-2 µg/mL is recommended using lysates of HEK-293T cells over-expressing human OSTF1.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Roodman, G.D., *Endocr. Rev.,* **17**, 308–332 (1996).
2. Reddy, S.V., and Roodman, G.D., *Crit. Rev. Eukaryot. Gene Expr.,* **8**, 1-17 (1998).
3. Reddy, S., et al., *J. Cell. Physiol.,* **177**, 636-645 (1998).
4. Kurihara, N., et al., *J. Biol. Chem.,* **276**, 41035-41039 (2001).

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