

Mouse Anti-Cathepsin K [3F9]: MC0673, MC0673RTU7

Intended Use: For Research Use Only

Description: Cathepsin K protein encoded by this gene is a lysosomal cysteine proteinase involved in bone remodeling and resorption. This protein, which is a member of the peptidase C1 protein family, is predominantly expressed in osteoclasts. However, the encoded protein is also expressed in a significant fraction of human breast cancers, where it could contribute to tumor invasiveness. Mutations in this gene are the cause of pycnodysostosis, an autosomal recessive disease characterized by osteosclerosis and short stature.

Specifications:

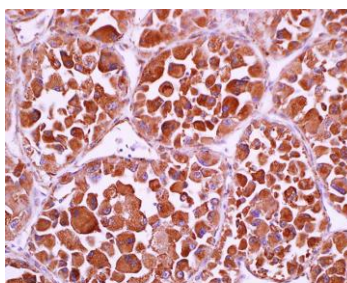
Clone: 3F9
 Source: Mouse
 Isotype: IgG2b
 Reactivity: Human
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, WB
 Package:

Description	Catalog No.	Size
Cathepsin K Concentrated	MC0673	1 ml
Cathepsin K Prediluted	MC0673RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Osteosarcoma, ovary cancer
 Concentrated Dilution: 50-200
 Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human alveolar soft sarcoma stained with anti-Cathepsin K using DAB

References:

1. Hormonal Regulation of Osteocyte Perilacunar and Canalicular Remodeling in the Hyp Mouse Model of X-Linked Hypophosphatemia. Tokarz D, et al. J Bone Miner Res 33:499-509, 2018.
2. Glucocorticoids cause mandibular bone fragility and suppress osteocyte perilacunar-canalicular remodeling. Alemi AS, et al. Bone Rep 9:145-153, 2018.
3. Interleukin-1 receptor-associated kinase-4 (IRAK4) promotes inflammatory osteolysis by activating osteoclasts and inhibiting formation of foreign body giant cells. Katsuyama E, et al. J Biol Chem 290:716-26, 2015.
4. Lentiviral delivery of PPAR γ shRNA alters the balance of osteogenesis and adipogenesis, improving bone microarchitecture. James AW, et al. Tissue Eng Part A 20:2699-710, 2014.

Doc. 100- MC0673
Rev. A