

## 36-2149: Anti-Cathepsin K (Marker of Tumor Invasiveness) Monoclonal Antibody(Clone: CTSK/2792)

|                                |  |
|--------------------------------|--|
| <b>Clonality :</b>             | Monoclonal   |
| <b>Clone Name :</b>            | CTSK/2792  |
| <b>Application :</b>           | IHC  |
| <b>Reactivity :</b>            | Human  |
| <b>Gene :</b>                  | CTSK   |
| <b>Gene ID :</b>               | 1513   |
| <b>Uniprot ID :</b>            | P43235   |
| <b>Alternative Name :</b>      | Cathepsin K; Cathepsin O; Cathepsin O1; Cathepsin O2; Cathepsin X; CTSO2; Ctsk; CTSO1; CTSO2; PKND; PYCD |
| <b>Isotype :</b>               | Mouse IgG1, kappa  |
| <b>Immunogen Information :</b> | Recombinant fragment of human Cathepsin K protein (around aa 163-274) (exact sequence is proprietary)    |

### Description

The 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.

### Product Info

|                            |   |
|----------------------------|---|
| <b>Amount :</b>            | 20 µg / 100 µg  |
| <b>Content :</b>           | 200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml. |
| <b>Storage condition :</b> | Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.                               |

### Application Note

Immunohistochemistry (Formalin-fixed) (1-2µg/ml for 30 minutes at RT) (Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes);

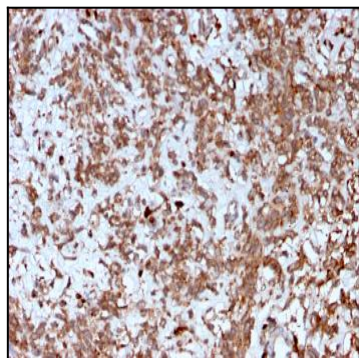


Fig. 1: Formalin-fixed, paraffin-embedded human Liver stained with Cathepsin K Mouse Monoclonal Antibody (CTSK/2792).

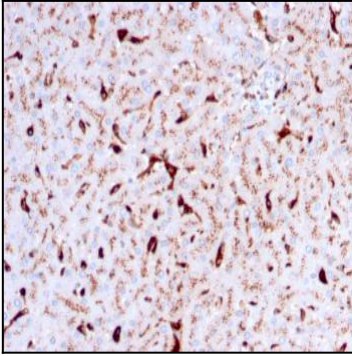


Fig. 2: Formalin-fixed, paraffin-embedded human Liver stained with Cathepsin K Mouse Monoclonal Antibody (CTSK/2792).

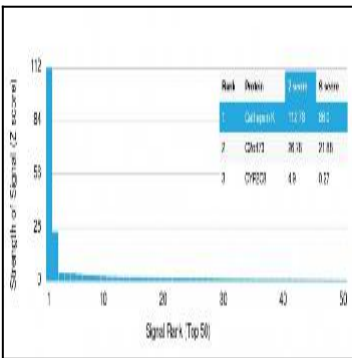


Fig. 3: Analysis of Protein Array containing more than 19,000 full-length human proteins using Cathepsin K Mouse Monoclonal Antibody (CTSK/2792) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (Monoclonal Antibody) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a Monoclonal Antibody to its intended target. A Monoclonal Antibody is considered to specific to its intended target, if the Monoclonal Antibody has an S-score of at least 2.5. For example, if a Monoclonal Antibody binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that Monoclonal Antibody to protein X is equal to 29.