Human Cathepsin B
Clone CB131
Cat. no. MONX10897

Specificity
Cathepsin B is a lysosomal cysteine protease expressed in a variety of different types of normal and neoplastic tissues. It may be associated with plasma membranes in many solid organ malignant tumours. Cathepsin B may be expressed in stromal cells, including macrophages and fibroblasts, of neoplastic tissue even where the tumour is negative. Enzymatic studies have revealed cathepsin B in many normal human tissues including skeletal muscle, liver, heart and adrenal glands. Immunohistochemical expression has been detected in gut mucosa, skin, prostate, thyroid with weak expression in brain. Cathepsin B has been demonstrated in human and rat heart, where it degrades acute ischaemic myocardial cells. Cathepsin B has been reported in breast tumours as well as in normal breast epithelium. A number of endothelial cells are positive in many tissues where these have been described as sprouting endothelial cells and this is thought to be related to tumour progression. Cathepsin B is overexpressed in squamous cell carcinoma where undifferentiated cells are strongly positive and the more differentiated cells in tumour islands are either weakly positive or negative. The expression of cathepsin B has also been noted in melanomas where the upregulation of this enzyme was found to be a characteristic of a more invasive tumour phenotype.

Immunoglobulin type
Mouse IgG2b

Use
The antibody can be used for immunohistochemistry on paraffin sections.

Instructions for use
Typical working dilution 1:40 - 1:80.
60 minutes primary antibody incubation at 25°C.
Standard ABC technique.

Antigen used for immunizations: Prokaryotic recombinant protein corresponding to the full length mature human cathepsin B molecule.
Staining pattern: Cytoplasmic

Positive control
Skin

Presentation
Lyophilised tissue culture supernatant containing 15mM sodium azide.
Reconstitute with 1ml or 0.1ml of sterile distilled water as indicated on vial label.
Literature

Storage and Handling
Store unopened lyophilised antibody at 4°C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4°C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20°C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.

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