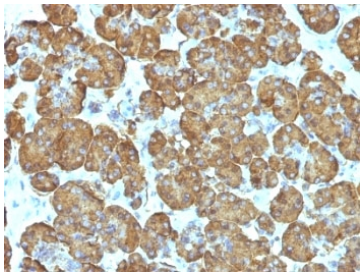
Cytochrome C Antibody [clone SPM389] (V2787)

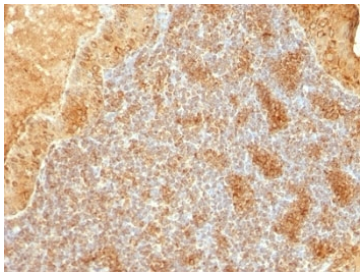
Catalog No.	Formulation	Size
V2787-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2787-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2787SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2787IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

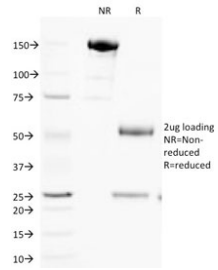
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	SPM389
Purity	Protein G affinity chromatography
UniProt	P99999
Localization	Cytoplasmic
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Cytochrome C antibody is available for research use only.



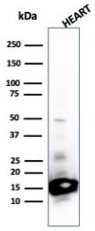
IHC: Formalin-fixed, paraffin-embedded human pancreas stained with Cytochrome C antibody (clone SPM389).



IHC: Formalin-fixed, paraffin-embedded human salivary tumor stained with Cytochrome C antibody (clone SPM389).



SDS-PAGE analysis of purified, BSA-free Cytochrome C antibody (clone SPM389) as confirmation of integrity and purity.



Western blot testing of human heart lysate with recombinant Cytochrome C antibody (clone SPM389). Predicted molecular weight: 12-14 kDa.

Description

Cytochrome C is a well-characterized mobile electron transport protein that is essential to energy conversion in all aerobic organisms. In mammalian cells, this highly conserved protein is normally localized to the mitochondrial inter-membrane space. More recent studies have identified cytosolic cytochrome c as a factor necessary for activation of apoptosis. During apoptosis, cytochrome c is trans-located from the mitochondrial membrane to the cytosol, where it is required for activation of caspase-3 (CPP32). Overexpression of Bcl-2 has been shown to prevent the translocation of cytochrome c, thereby blocking the apoptotic process. Overexpression of Bax has been shown to induce the release of cytochrome c and to induce cell death. The release of cytochrome c from the mitochondria is thought to trigger an apoptotic cascade, whereby Apaf-1 binds to Apaf-3 (caspase-9) in a cytochrome c-dependent manner, leading to caspase-9 cleavage of caspase-3. This mAb recognizes total cytochrome C which includes both apocytochrome (i.e. cytochrome in the cytosol without heme attached) and holocytochrome (i.e cytochrome in the mitochondria with heme attached).

Application Notes

Optimal dilution of the Cytochrome C antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids 66-104 of pigeon Cytochrome C were used as the immunogen for the Cytochrome C antibody. It recognizes

an epitope within amino acids 93-104 of pigeon Cytochrome C.

Storage

Store the Cytochrome C antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).