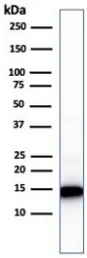
Cytochrome C Antibody 7H8.2C12 / CYCS Monoclonal Antibody [clone 7H8.2C12] (V2786)

Catalog No.	Formulation	Size
V2786-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2786-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2786SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2786IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

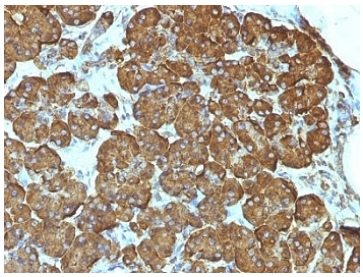
Citations (11)

Bulk quote request

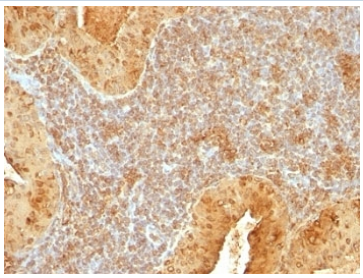
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	7H8.2C12
Purity	Protein G affinity chromatography
UniProt	P99999
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Cytochrome C Antibody 7H8.2C12 / CYCS Monoclonal Antibody is available for research use only.



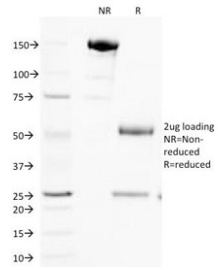
Cytochrome C Antibody by WB in human heart lysate. Western blot analysis of human heart lysate using Cytochrome C Antibody clone 7H8.2C12 demonstrates a prominent immunoreactive band at approximately 15 kDa, consistent with the routinely observed migration of cytochrome c. The calculated molecular weight of CYCS is approximately 12 kDa. The difference between calculated mass and apparent electrophoretic mobility may reflect the behavior of this small, heme-containing protein during SDS-PAGE, although the mechanism was not established in this experiment. The single visible lane shows a strong, relatively discrete band near 15 kDa, supporting detection of cytochrome c in human heart tissue with this CYCS Monoclonal Antibody.



Cytochrome C Antibody by IHC in human pancreas. Immunohistochemistry of formalin-fixed, paraffin-embedded human pancreas using Cytochrome C Antibody clone 7H8.2C12 demonstrates prominent brown cytoplasmic staining in pancreatic tissue. The staining is particularly evident in glandular epithelial cells, with a granular appearance consistent with the mitochondrial localization of cytochrome c. Differences in staining intensity are visible across the tissue, reflecting variation in CYCS immunoreactivity among cellular regions. This CYCS Monoclonal Antibody highlights cytochrome c expression in human pancreatic tissue.



Cytochrome C Antibody by IHC in human salivary tumor. Immunohistochemistry of formalin-fixed, paraffin-embedded human salivary tumor using Cytochrome C Antibody clone 7H8.2C12 demonstrates brown cytoplasmic staining in portions of the tumor tissue. Immunoreactivity is distributed heterogeneously, with stronger staining in some cellular regions and comparatively weak staining in others. The observed staining pattern is consistent with cytoplasmic detection of CYCS, a mitochondrial protein involved in electron transport and apoptotic signaling. This CYCS Monoclonal Antibody demonstrates cytochrome c immunoreactivity in human salivary tumor tissue.



SDS-PAGE analysis of purified, BSA-free Cytochrome C antibody (clone 7H8.2C12) as confirmation of integrity and purity.

Description

Cytochrome C Antibody 7H8.2C12 / CYCS Monoclonal Antibody recognizes cytochrome c, a small heme-containing protein encoded by the CYCS gene. Cytochrome c is an essential component of the mitochondrial electron transport chain and plays a central role in cellular energy production and programmed cell death. This highly conserved protein is found primarily in the mitochondrial intermembrane space, where it transfers electrons between complex III and complex IV during oxidative phosphorylation. Through this activity, cytochrome c contributes to the generation of the proton gradient required for ATP synthesis.

Beyond its mitochondrial function, cytochrome c serves as a key regulator of intrinsic apoptosis. In response to cellular stress, mitochondrial outer membrane permeabilization allows cytochrome c to enter the cytosol. Once released, it interacts with apoptotic protease activating factor 1 (APAF1), promoting apoptosome assembly and activation of caspase-9. This initiates a proteolytic cascade involving downstream executioner caspases, including caspase-3, ultimately leading to apoptotic cell death. Members of the BCL2 protein family regulate this process by controlling mitochondrial membrane permeability.

Cytochrome c exists in distinct molecular forms, including holocytochrome c, which contains its covalently attached heme

group, and apocytochrome c, which lacks heme. Clone 7H8.2C12 recognizes total cytochrome c, including both forms, making it useful for investigating mitochondrial protein expression and apoptosis-associated changes. The antibody recognizes an epitope within amino acids 93-104 of pigeon cytochrome c and demonstrates reactivity with human, mouse and rat samples. Its mouse IgG2b isotype and defined monoclonal specificity distinguish it from other CYCS antibodies available through NSJ Bioreagents.

Changes in cytochrome c abundance and subcellular distribution are widely studied in cancer biology, neurodegeneration, cardiovascular disease and mitochondrial dysfunction. Researchers also examine cytochrome c release to investigate cellular responses to oxidative stress, DNA damage and therapeutic interventions. An Cytochrome C Antibody provides a reagent for examining CYCS expression and its involvement in mitochondrial function and apoptotic signaling.

Explore our Metabolism Antibodies for investigating mitochondrial electron transport, oxidative phosphorylation, and cellular energy regulation.

Application Notes

Optimal dilution of the Cytochrome C Antibody 7H8.2C12 / CYCS Monoclonal 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

Synthetic peptides corresponding to amino acids 1-80, 81-104, and 66-104 of pigeon cytochrome c. Clone 7H8.2C12 recognizes an epitope within amino acids 93-104, as determined by competitive ELISA.

Storage

Store the Cytochrome C Antibody 7H8.2C12 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CYCS antibody, Cytochrome c oxidoreductase antibody, Apoptosis-related cytochrome c antibody

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