

Mouse Anti-IRE1 α /ERN1 [10B2B2]: MC0580

Intended Use: For Research Use Only

Description: Accumulation of misfolded proteins in the endoplasmic reticulum (ER) activates the unfolded protein response (UPR) and upregulates ER molecular chaperones in order to cope with ER stress. UPR is initiated by three ER-localized protein sensors: PERK (PKR-like ER kinase), ATF (activating transcription factor 6), and IRE1 alpha (inositol-requiring enzyme 1 alpha). IRE1 alpha is correlated with X-box binding protein (XBP1) as a potent UPR transcriptional activator. IRE1 alpha acts as the sensor of unfolded proteins in the ER. IRE1 alpha not only promotes cell survival but can initiate apoptosis when accumulation of unfolded proteins in the ER causes stress. IRE1 alpha is essential for viability under stress conditions that cause unfolded proteins to accumulate in the ER. IRE1 alpha is a transmembrane protein that has both serine-threonine kinase and endoribonuclease activities and has a theoretical molecular weight of 110 kDa. When detecting phospho-IRE1 alpha, it is recommended to normalize its band intensity with total IRE1 alpha.

Specifications:

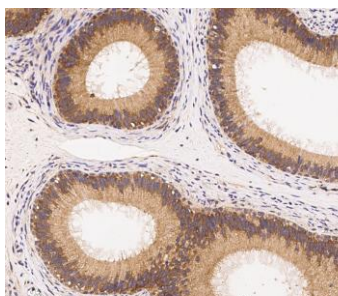
Clone:	10B2B2
Source:	Mouse
Isotype:	IgG2b
Reactivity:	Human
Immunogen:	Recombinant human IRE1 protein
Localization:	Endoplasmic reticulum
Formulation:	Purified antibody in PBS pH7.4, containing BSA and \leq 0.09% sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC
Package:	

Description	Catalog No.	Size
IRE1 α / ERN1 [10B2B2] Concentrated	MC0580	1 ml

IHC Procedure*:

Positive Control Tissue:	Small intestine, brain, stomach
Concentrated Dilution:	10-100
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes 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 epididymis stained with anti-IRE1 α using DAB

References:

1. Dual role for inositol-requiring enzyme 1a in promoting the development of hepatocellular carcinoma during diet-induced obesity in mice. Wu Y, et al. Hepatology 68:533-546, 2018.
2. Trentmann, S.M. et al., 2000, Plant Mol Biol. 44 (1):11-25. Iwawaki T., et al., 2001, Nat. Cell Biol. 3:158-64. Liu C.Y., et al., 2003, J. Biol. Chem. 278:17680-7. Oppermann F.S., et al., Mol. Cell. Proteomics 8:1751-64, 2009.