

Product datasheet for **TA389012**

Phospho-Ern1 (pSer724) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:1000 WB Brain: 1:1000
Reactivity:	Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser724 of mouse IRE1, conjugated to keyhole limpet hemocyanin (KLH).
Specificity:	Specific for endogenous levels of the ~130 kDa GluR1 protein phosphorylated at Ser724. Immunolabeling is completely eliminated by treatment with λ -phosphatase.
Formulation:	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g per ml BSA and 50% glycerol.
Concentration:	lot specific
Purification:	Antigen Affinity Purified from Pooled Serum
Conjugation:	Unconjugated
Storage:	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	130
Gene Name:	endoplasmic reticulum (ER) to nucleus signalling 1
Database Link:	Entrez Gene 78943 Mouse O75460



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- Background:** IRE1, inositol requiring 1 protein, is an ER transmembrane sensor that activates unfolded protein response (UPR) to maintain the ER and cellular function (Chen et al, 2013). The activation of UPR involves three signaling pathways, IRE1, PERK, and ATF6, which are crucial to returning protein homeostasis to levels of non-stressed cells (Stewart et al, 2012). Changes in ER homeostasis causing unfolded protein buildup can be due to Ca²⁺ depletion, hypoxia, altered glycosylation, and viral infection triggering the UPR and activation of IRE1 (Stewart et al, 2012). UPR dysfunction plays an important role in the pathogenesis of neurodegenerative diseases including Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis and Huntington's disease, which is characterized by the accumulation and aggregation of misfolded proteins (Xiang C et al, 2017). The phosphorylation of IRE1 at ser724 may play a significant role in understanding these diseases.
- Synonyms:** FLJ30999; hIRE1p; IRE1; Ire1-alpha; IRE1a; IRE1P; MGC163277; MGC163279
- Note:** Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.