

## Product datasheet for **AM20047PU-S**

### **KDEL Receptor (KDEL R1) (C-term) Mouse Monoclonal Antibody [Clone ID: 2E7]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	2E7
<b>Applications:</b>	IF, WB
<b>Recommended Dilution:</b>	<b>Western blot:</b> 1/1000-1/2000. 1 µg/ml of this antibody was sufficient for detection of HDEL-containing proteins in 10 µg of <i>cerevisiae</i> lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG -HRP as the secondary antibody. <b>Immunofluorescence:</b> 1/50-1/500.
<b>Reactivity:</b>	Drosophila, Yeast
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2b
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	A synthetic HDEL peptide corresponding to the C-terminus of Yeast Bip.
<b>Specificity:</b>	Detects ~78kDa protein. The 2E7 clone recognizes the C-terminal peptide HDEL, a common version of the endoplasmic reticulum retention signal found in Yeast, Plant, nematode and other ER proteins. It specifically stains HDEL proteins in barnyard grass, beet, cotton, mung bean, sorghum and wheat (4).
<b>Formulation:</b>	PBS, pH 7.4 containing 50% Glycerol with 0.09% Sodium Azide as preservative State: Purified State: Liquid purified IgG fraction
<b>Concentration:</b>	lot specific
<b>Purification:</b>	Protein G Chromatography
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	KDEL endoplasmic reticulum protein retention receptor 1



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**Database Link:** [Entrez Gene 10945 Human P24390](#)

**Background:** HSP 70 family comprises four highly conserved proteins, HSP 70, HSC 70, GRP 75 and GRP 78, which serve a variety of roles. They act as molecular chaperones, facilitating the assembly of multi-protein complexes; participate in the translocation of polypeptides across cell membranes and to the nucleus; and aid in the proper folding of nascent polypeptide chains (1, 2). GRP 78 is localized in the endoplasmic reticulum (ER), where it receives imported secretory proteins and is involved in the folding and translocation of nascent peptide chains (2). Sorting of these proteins is dependent on a C-terminal tetrapeptide signal, usually KDEL in animal cells, and HDEL in *S.cerevisiae* (3).

**Synonyms:** KDEL endoplasmic reticulum protein retention receptor 1, ERD2.1, ER marker

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** *Vibrio cholerae* infection