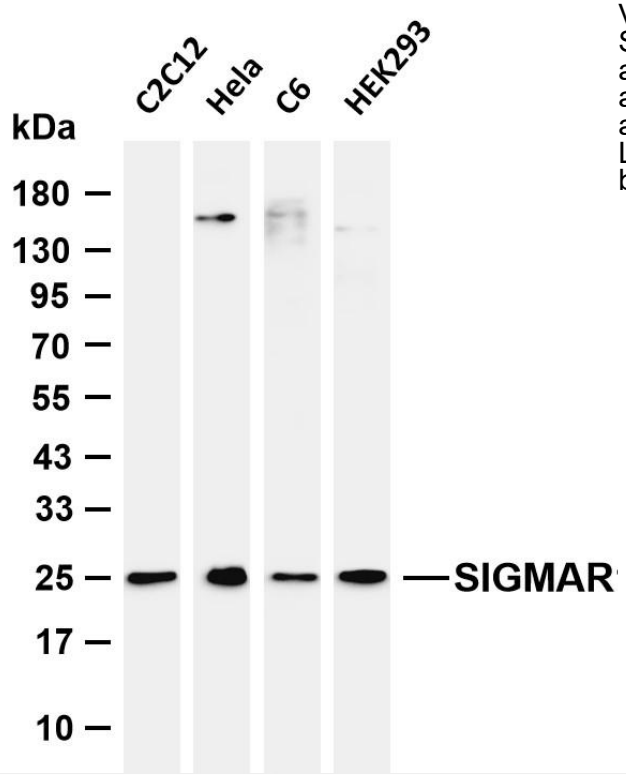
SIGMAR1 Rabbit mAb

Catalog No	YP-rAb-17120
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	SIGMAR1 OPRS1 SRBP AAG8
Protein Name	Sigma non-opioid intracellular receptor 1 (Aging-associated gene 8 protein) (SR31747-binding protein) (SR-BP) (Sigma 1-type opioid receptor) (SIG-1R) (Sigma1-receptor) (Sigma1R) (hSigmaR1)
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	
Observed Band	25kD
Calculated Molecular Weight	25kD
Cell Pathway	Nucleus inner membrane . Nucleus outer membrane . Nucleus envelope . Cytoplasmic vesicle . Endoplasmic reticulum membrane . Membrane ; Single-pass membrane protein . Lipid droplet . Cell junction. Cell membrane . Cell projection, growth cone. Cell junction, synapse, postsynaptic density membrane . During interphase, detected at the inner and outer nuclear membrane and the endoplasmic reticulum. Detected on cytoplasmic vesicles during mitosis (PubMed:10406945). Targeted to lipid droplets, cholesterol and galactosylceramide-enriched domains of the endoplasmic reticulum. Accumulation at the endoplasmic reticulum is prominent in alpha-motor neurons of patients with amyotrophic lateral sclerosis (PubMed:23314020). Enriched at cell-cell communication regions, growth cone and postsynaptic structures. Localization is modulated by ligand-binding. In motor neurons it is enriched at cholinergic postsynaptic densities (By similarity). .
Tissue Specificity	Widely expressed with higher expression in liver, colon, prostate, placenta, small intestine, heart and pancreas. Expressed in the retina by retinal pigment epithelial cells. Expressed in alpha-motor neurons (PubMed:23314020).

Function	Functions in lipid transport from the endoplasmic reticulum and is involved in a wide array of cellular functions probably through regulation of the biogenesis of lipid microdomains at the plasma membrane. Involved in the regulation of different receptors it plays a role in BDNF signaling and EGF signaling. Also regulates ion channels like the potassium channel and could modulate neurotransmitter release. Plays a role in calcium signaling through modulation together with ANK2 of the ITP3R-dependent calcium efflux at the endoplasmic reticulum. Plays a role in several other cell functions including proliferation, survival and death. Originally identified for its ability to bind various psychoactive drugs it is involved in learning processes, memory and mood alteration.,miscellaneous:Depletion of OPRS1 by RNAi inhibits growth and survival signaling cascades and induces cell death. The OSPR1 antagonist rimcazole produces the same effect.,online information:Sigma-1 receptor entry,similarity:Belongs to the ERG2 family.,subcellular location:Targeted to lipid droplets, cholesterol and galactosylceramide-enriched domains of the endoplasmic reticulum. Enriched at cell-cell communication regions, growth cone and postsynaptic structures. Localization is modulated by ligand-binding.,tissue specificity:Widely expressed with higher expression in liver, colon, prostate, placenta, small intestine, heart and pancreas. Expressed in the retina by retinal pigment epithelial cells.,
Background	This gene encodes a receptor protein that interacts with a variety of psychotomimetic drugs, including cocaine and amphetamines. The receptor is believed to play an important role in the cellular functions of various tissues associated with the endocrine, immune, and nervous systems. As indicated by its previous name, opioid receptor sigma 1 (OPRS1), the product of this gene was erroneously thought to function as an opioid receptor; it is now thought to be a non-opioid receptor. Mutations in this gene has been associated with juvenile amyotrophic lateral sclerosis 16. Alternative splicing of this gene results in transcript variants encoding distinct isoforms. [provided by RefSeq, Aug 2013],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SIGMAR1 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: C2C12 Lane 2: Hela Lane 3: C6 Lane 4: HEK293 Predicted band size: 25kDa Observed band size: 25kDa