iFluor™ 488 Conjugated Anti-Calretinin Antibody [JM12-93]

HA720153F

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IF-Cell, FC
Molecular Wt:	Predicted band size: 32 kDa
Clone number:	JM12-93

Description: Calbindin D28K and Calretinin (also designated CR or 29 kDa Calbindin) are two closely related intracellular calcium-binding proteins belonging to the Troponin-C superfamily. Initially isolated from chick retina, Calretinin shares 58% identical residues with human Calbindin D28K. Calretinin is expressed in the brain and is particularly abundant in auditory neurons with precisely timed discharges. Neurons in the nucleus accumbens containing Calretinin all possess nuclear indentations. Calretinin-immunoreactive boutons form asymmetrical and symmetrical synaptic specializations on spines, dendrites and somata. The symmetrical synaptic specializations have medium-sized spiny neurons and contact other Calretinin-immunoreactive somata. Calretinin is widely used as a immunocytochemical marker for mesothelioma.

Conjugate: iFluor™ 488, Ex: 491nm; Em: 516nm.

Immunogen: Synthetic peptide within human Calretinin aa 60-100.

Positive control: SH-SY5Y.

Subcellular location: Cytosol, dendrite, gap junction, nucleus, parallel fiber to Purkinje cell synapse, synapse, terminal bouton.

Database links: SwissProt: P22676 Human

Recommended Dilutions:

IF-Cell	1:100
FC	1:500-1:1,000

Storage Buffer: Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

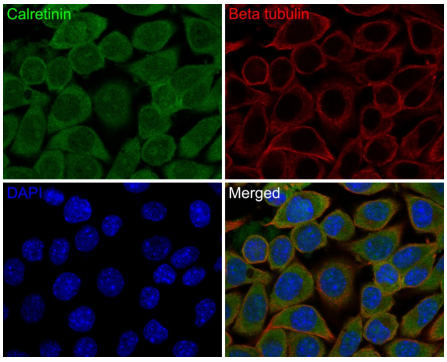

Fig1: Immunocytochemistry analysis of SH-SY5Y cells labeling Calretinin with Rabbit anti-Calretinin antibody (HA720153F) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 2% normal goat serum for 1 hour at 37 ℃. Cells were then incubated with Rabbit anti-Calretinin antibody (HA720153F) at 1/100 dilution in 2% normal goat serum overnight at 4 ℃. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/200 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) were used as the secondary antibody at 1/800 dilution.

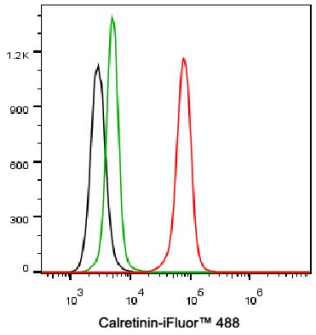

Fig2: Flow cytometric analysis of SH-SY5Y cells labeling Calretinin.

Cells were fixed and permeabilized. Then incubated for 30 minutes at +4℃ with Calretinin (HA720153F, red, 1ug/ml) and Rabbit IgG Isotype Control (iFluor™ 488, green, 1ug/ml). Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Francavilla C et al. Phosphoproteomics of Primary Cells Reveals Druggable Kinase Signatures in Ovarian Cancer. Cell Rep 18:3242-3256 (2017).
2. McMahon SM et al. Multiple cytosolic calcium buffers in posterior pituitary nerve terminals. J Gen Physiol 147:243-54 (2016).