Anti– human Synaptophysin (SYP) Mouse Monoclonal Primary Antibody

Clone: UMAB112

**Intended use**
Anti- human Synaptophysin (Clone: UMAB112) Mouse Monoclonal Primary Antibody is intended for detection of synaptophysin protein expression in frozen or formalin fixed human tissues and cells. The clinical interpretation of any positive staining or its absence should be complemented by morphological and histological studies with proper controls. Evaluations should be made within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist. The antibody is intended for *in vitro* diagnostic (IVD) use.

**Background**
Synaptophysin is an integral membrane protein of small synaptic vesicles in brain and endocrine cells. The protein also binds cholesterol and is thought to direct targeting of vesicle-associated membrane protein 2 (synaptobrevin) to intracellular compartments. Mutations in this gene are associated with X-linked mental retardation (XLMR).

Alternative names: SYP, Major Synaptic Vesicle Protein p38, MRXSYp, Syn p38

**Reagent provided**
Anti-human Synaptophysin Mouse Monoclonal Primary Antibody (Clone: UMAB112) is provided in liquid form in 20mM Sodium phosphate, 150mM Sodium chloride, 0.2% BSA, 0.09% Sodium azide, pH 7.4. The isotype of the antibody is IgG2b. The protein concentration is approximately 0.4 +/- 0.05 mg/mL.

For immunohistochemistry, the primary antibody may be used at a working dilution of 1:100 – 1:200 for formalin-fixed, paraffin-embedded human tissue. It can be dependent upon the detection system used. These are guidelines only, and optimal dilutions should be determined by the individual laboratory.
**Immunogen**
Full length human recombinant protein of human SYP(NP_003170) produced in HEK293T cell.

**Specificity**
The specificity of the anti-human Synaptophysin Mouse Monoclonal Primary Antibody was established on known positive human carcinoid, pancreas and negative normal lung, placenta, and tonsil. The anti-Synaptophysin presented no staining on formalin fixed human lung, placenta, and tonsil tissue and positive staining on formalin fixed human carcinoid and pancreas tissue using immunohistochemical (IHC) test methods.

**Materials Required but Not Supplied**
Antibody diluent, HIER solution, Antibody detection kits, Chromogen, Staining reagents, negative and positive tissue control slides are not included.

**Precautions**
1. For use by trained professionals only.
2. This product contains sodium azide (NaNO₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, NaNO₃ may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.
3. Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
4. Unused reagents should be disposed of according to local, State, and Federal regulations.

**Storage**
Store at 2-8°C. Do not use the product past the expiration date indicated on the label. If reagents are stored under any other conditions, the end user must verify the acceptability of those conditions. There are no obvious signs to indicate instability of this product therefore, positive and negative controls should be run simultaneously with patient specimens.

**Specimen Preparation**

**Paraffin Sections**
Anti-human Synaptophysin Mouse Monoclonal Primary Antibody can be used on formalin-fixed, paraffin-embedded tissue sections at a working dilution of 1:100 to 1:200. Anti-human Synaptophysin Mouse Monoclonal Primary Antibody (Clone: UMA112) working dilution requires 20 minutes of pretreatment with Heat Induced Epitope Retrieval (HIER) for staining. We recommend using HIER Citrate Buffer pH 6.0, which showed optimal staining at a dilution of 1:200 on positive human carcinoid and pancreas and negative staining on normal human lung and tonsil. The dilutions are estimates; the actual staining results may vary due to reagents and detection protocols used. Validation of antibody performance and final protocol are the responsibility of the end user.

**Staining procedure**

**Manual Staining Procedure**
1. Deparaffinize slides.
2. Submerge slides in peroxidase quenching solution for ~10 minutes and rinse with PBS-T 3 times, 2 minutes each.
3. Heat Induced Epitope Retrieval is required for this antibody.
4. Apply serum blocking solution.[Optional]
5. Apply primary antibody and incubate for 30-60 minutes at room temperature. After incubation wash with PBS-T 3 times, 2 minutes each.
6. Apply secondary antibody and incubate according to the data sheet of the detection system. Wash with PBS-T 3 times, 2 minutes each.
7. Apply enzyme conjugate and incubate according to data sheet of detection system. Wash with PBS-T 3 times, 2 minutes each.
8. Apply chromogen and incubate 5-10 minutes and rinse with distilled water.
**Staining interpretation**
The cellular staining pattern for Anti- human Synaptophysin Mouse Monoclonal Primary Antibody is cytoplasmic.

**Performance Characteristics**

**Predicted Staining in Normal Tissue/Cells**
Normal human lung, placenta and tonsil were shown to be negative for this antibody.

**Predictive Staining in Tumor**
Anti- human Synaptophysin Mouse Monoclonal (Clone: UMAB112) produced strong cytoplasmic staining when screened on positive human carcinoid and pancreas.

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