Anti– human N-Cadherin Mouse Monoclonal Primary Antibody
Clone: 3B10

**Intended use**
Anti-human N-Cadherin (Clone: 3B10) Mouse Monoclonal Primary Antibody is intended for detection of N-Cadherin 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**
N-Cadherin is a classical cadherin from the cadherin superfamily. It is a calcium dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. The protein functions during gastrulation and is required for establishment of left-right asymmetry. At certain central nervous system synapses, presynaptic to postsynaptic adhesion is mediated at least in part by N-Cadherin. [provided by RefSeq].

Alternative names: CDH2, CD325, CDHN, NCAD, CDw325

**Reagent provided**
Anti-human N-Cadherin Mouse Monoclonal Primary Antibody (Clone: 3B10) 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 IgG2a. The protein concentration is approximately 1.0 +/- 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 CDH2 (NP_001783) produced in HEK293T cell.
Specificity
The specificity of the anti-human N-Cadherin Mouse Monoclonal Primary Antibody was established on known human kidney and human tonsil. The anti-N-Cadherin presented no staining on the germinal and non-germinal centers of the tonsil, and positive staining on human kidney tissue using immunohistochemical (IHC) test methods.

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

Precautions
1. For use by trained professionals only.
2. This product contains sodium azide (NaN₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, NaN₃ 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 N-Cadherin Mouse Monoclonal Primary Antibody can be used on paraffin-embedded tissue sections at a working dilution of 1:100 to 1:200. Anti-human N-Cadherin Mouse Monoclonal Primary Antibody (Clone: 3B10) working dilution requires 20 minutes of pretreatment with Heat Induced Epitope Retrieval (HIER) for staining. We recommend using Accel HIER buffer from GBI Labs B22C-100, which showed optimal staining at a dilution of 1:200 on positive human kidney and negative staining on the germinal and non-germinal centers of normal human 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 3% peroxidase quenching solution for ~10 minutes and rinse with distilled water 2 times, 2 minutes each.
3. Heat Induced Epitope Retrieval is required for this antibody. We recommend Accel pH 8.5 HIER buffer [GBI Labs B22C-100].
4. Wash with PBS buffer 3 times, 2 minutes each before staining. 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 Cadherin Mouse Monoclonal Primary Antibody is membranous.

Performance Characteristics
Predicted Staining in Normal Tissue/Cells
The germinal and non-germinal centers of normal human tonsil were shown to be negative for this antibody.

Anti-human N-Cadherin Mouse Monoclonal Primary Antibody (Clone: 3B10) produced membranous staining when screened on human kidney.
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