

## Product datasheet for **UM500023CF**

### N Cadherin (CDH2) Mouse Monoclonal Antibody [Clone ID: UMAB23]

#### Product data:

|                         |  |
|-------------------------|--|
| Product Type:           | Primary Antibodies   |
| Clone Name:             | UMAB23   |
| Applications:           | FC, IF, IHC, WB  |
| Recommended Dilution:   | WB 1:2000, IHC 1:150, FLOW 1:100   |
| Reactivity:             | Human, Mouse, Rat  |
| Host:                   | Mouse  |
| Isotype:                | IgG2a  |
| Clonality:              | Monoclonal   |
| Immunogen:              | Full length human recombinant protein of human CDH2(NP_001783) produced in HEK293T cell.   |
| Formulation:            | Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)  |
| Reconstitution Method:  | For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific) |
| Purification:           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)  |
| Conjugation:            | Unconjugated   |
| Storage:                | Store at -20°C as received.  |
| Stability:              | Stable for 12 months from date of receipt.   |
| Predicted Protein Size: | 97.2 kDa   |
| Gene Name:              | cadherin 2   |
| Database Link:          | <a href="#">NP_001783</a><br><a href="#">Entrez Gene 12558 Mouse</a> <a href="#">Entrez Gene 83501 Rat</a> <a href="#">Entrez Gene 1000 Human</a><br><a href="#">P19022</a>  |


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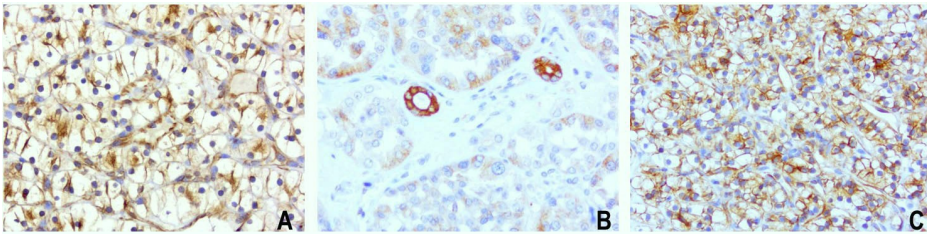
**Background:** This gene is a classical cadherin from the cadherin superfamily. The encoded protein is a calcium dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. The protein functions during gastrulation 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 this gene product. [provided by RefSeq]

**Synonyms:** CD325; CDHN; CDw325; NCAD

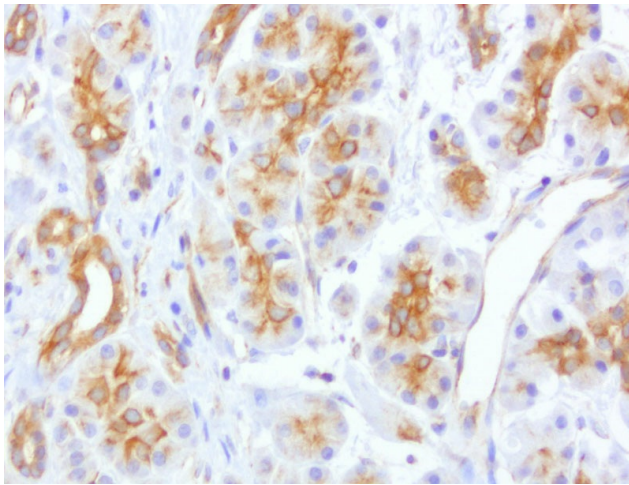
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cell adhesion molecules (CAMs)

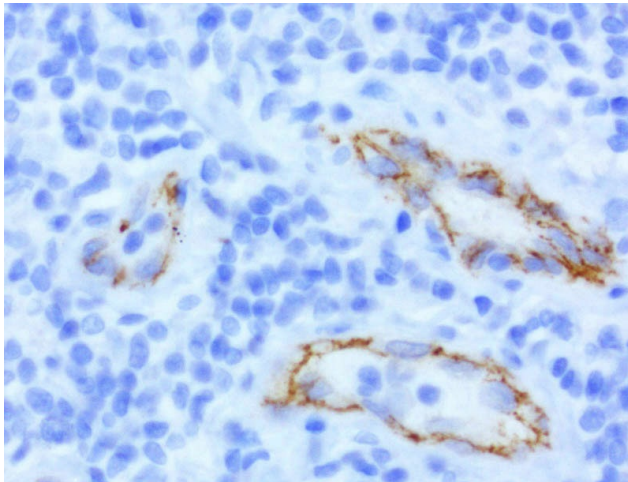
### Product images:



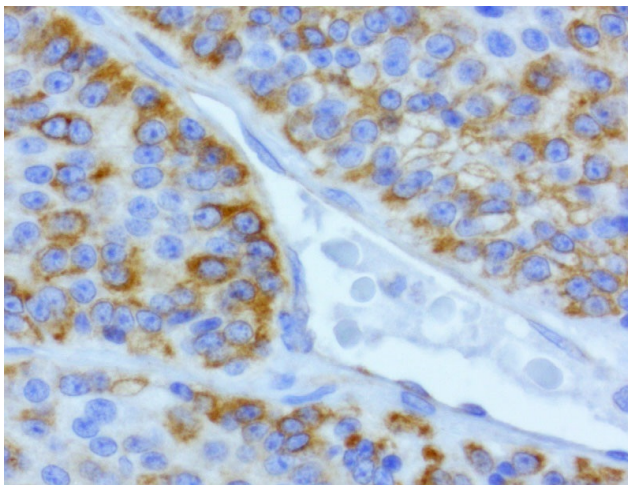
Immunohistochemical staining of paraffin-embedded of 3 human carcinoma of kidney using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The composite image of 3 human carcinoma of the kidney all show strong membraneous and cytoplasmic staining in the tumor cells.



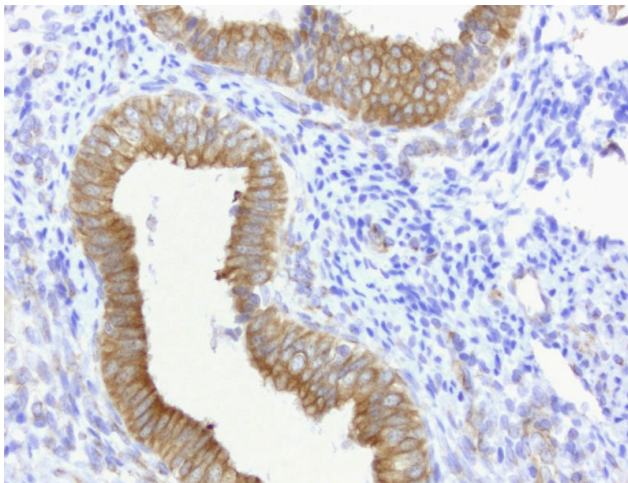
Immunohistochemical staining of paraffin-embedded of human pancreas using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows glandular cells of the pancreas membraneous and cytoplasmic staining cells.



Immunohistochemical staining of paraffin-embedded of human lymph node using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows cells of the lymph node are negative. Positive staining seen in the endothelial cells, mostly membranous with weak cytoplasmic.

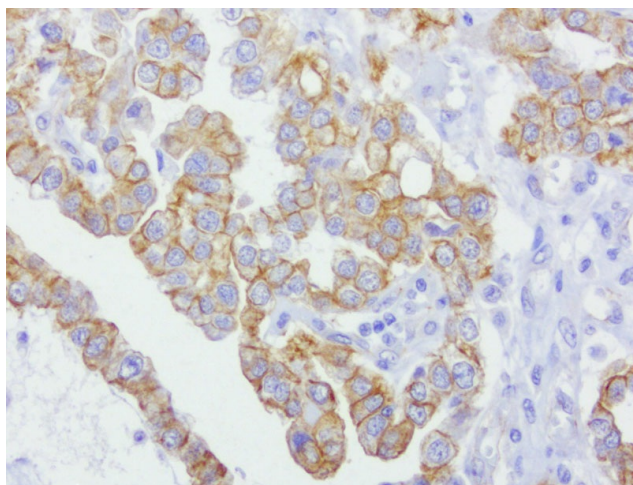


Immunohistochemical staining of paraffin-embedded of human carcinoma of the lung using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows the tumor cells with membranous and cytoplasmic staining.

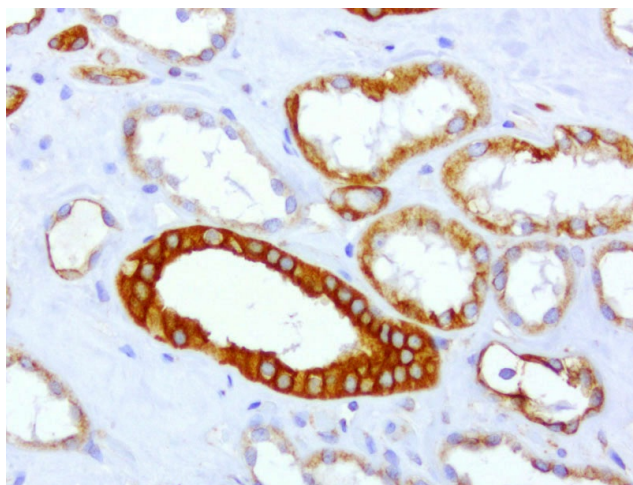


Immunohistochemical staining of paraffin-embedded of human endometrium using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows strong membranous and cytoplasmic staining of the endometrial cells.

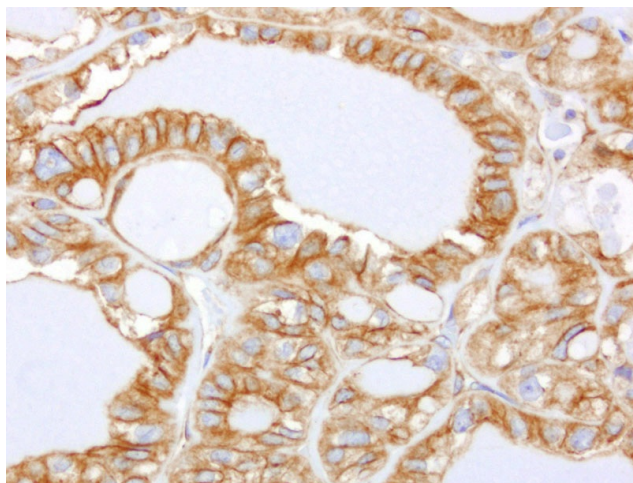




Immunohistochemical staining of paraffin-embedded human ovarian carcinoma using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows strong membranous and cytoplasmic staining of the tumor cells

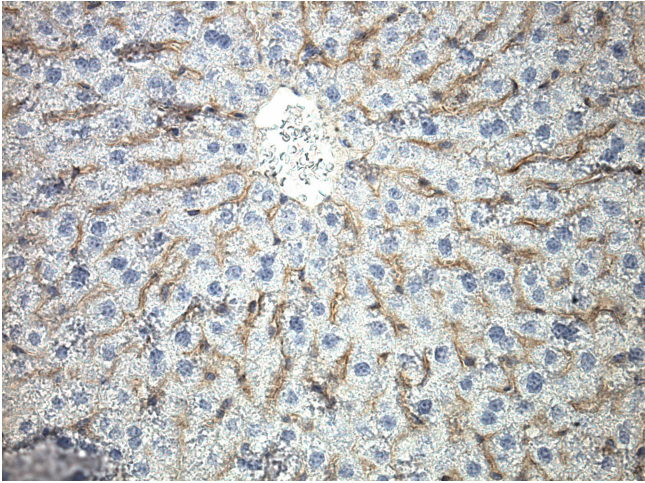


Immunohistochemical staining of paraffin-embedded human kidney using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows strong membranous and cytoplasmic staining in the kidney tubules

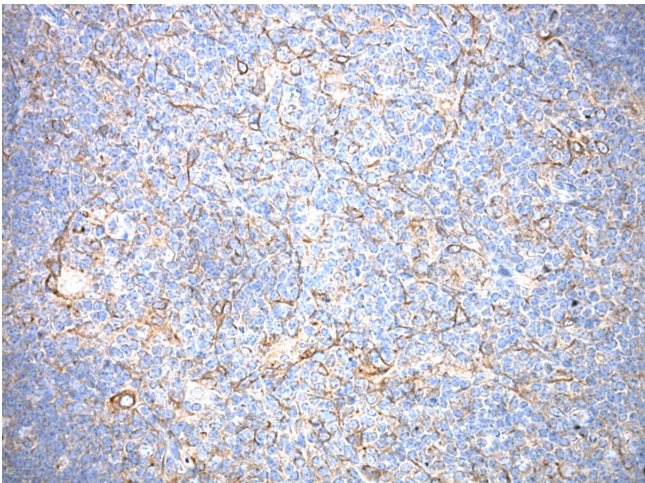


Immunohistochemical staining of paraffin-embedded human thyroid carcinoma using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min. The image shows strong membranous and cytoplasmic staining of the tumor cells

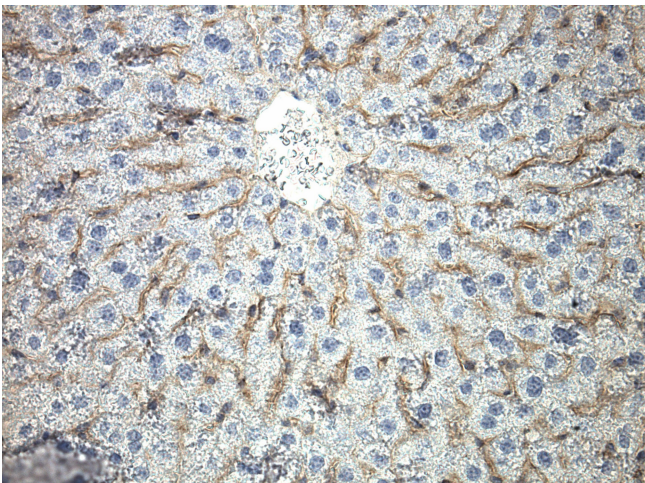




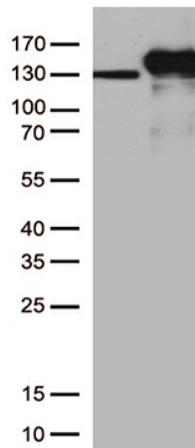
Immunohistochemical staining of paraffin-embedded mouse lung tissue using anti-CDH2 clone UMAB23 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM500023] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



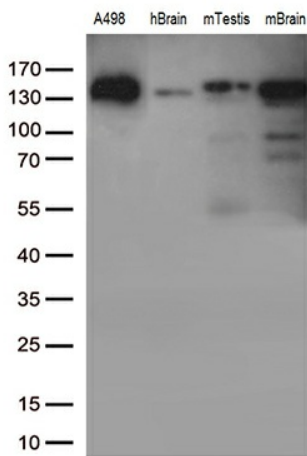
Immunohistochemical staining of paraffin-embedded mouse spleen tissue using anti-CDH2 clone UMAB23 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM500023] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



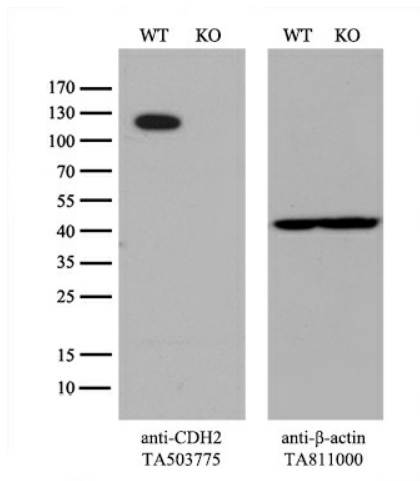
Immunohistochemical staining of paraffin-embedded mouse liver tissue using anti-CDH2 clone UMAB23 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, [UM500023] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



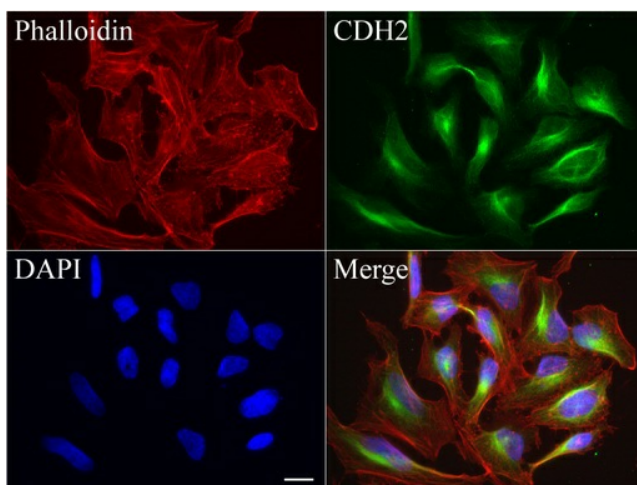
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CDH2 ([RC207170], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDH2 mouse monoclonal antibody (1:1000).



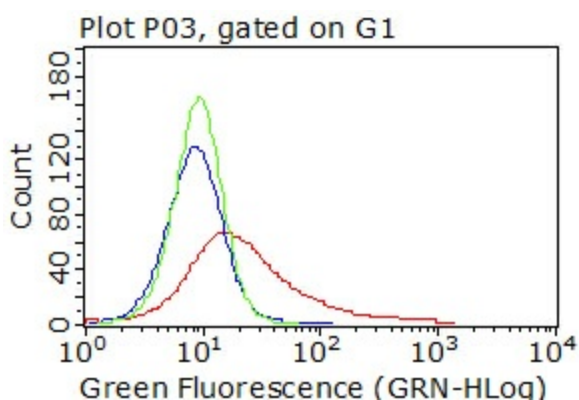
Western blot analysis of extracts (35ug) from cell line and tissues by using anti-CDH2 monoclonal antibody (1:500).



Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and CDH2-Knockout 293T cells (KO, Cat# [LC840285]) were separated by SDS-PAGE and immunoblotted with anti-CDH2 monoclonal antibody [UM500023], (1:500). Then the blotted membrane was stripped and reprobed with anti-β-actin antibody ([TA811000]) as a loading control.



Immunofluorescent staining of HeLa cells using anti-CDH2 mouse monoclonal antibody ([UM500023], green, 1:50). Actin filaments were labeled with Alexa Fluor® 594 Phalloidin (red), and nuclear with DAPI (blue). Scale bar, 20µm.



Living HEK293T cells transfected with either [RC207170] plasmid (red) or empty vector (blue) were immunostained by anti-CDH2 antibody ([UM500023]) or isotype control antibody (green), and then analyzed by flow cytometry (1:50).