

## Product datasheet for **UM500023CF**

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

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	UMAB23
<b>Applications:</b>	FC, IF, IHC, WB
<b>Recommended Dilution:</b>	WB 1:2000, IHC 1:150, FLOW 1:100
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2a
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Full length human recombinant protein of human CDH2(NP_001783) produced in HEK293T cell.
<b>Formulation:</b>	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
<b>Reconstitution Method:</b>	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)
<b>Purification:</b>	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Predicted Protein Size:</b>	97.2 kDa
<b>Gene Name:</b>	cadherin 2
<b>Database Link:</b>	<a href="#">NP_001783</a> <a href="#">Entrez Gene 12558 Mouse</a> <a href="#">Entrez Gene 83501 Rat</a> <a href="#">Entrez Gene 1000 Human</a> <a href="#">P19022</a>



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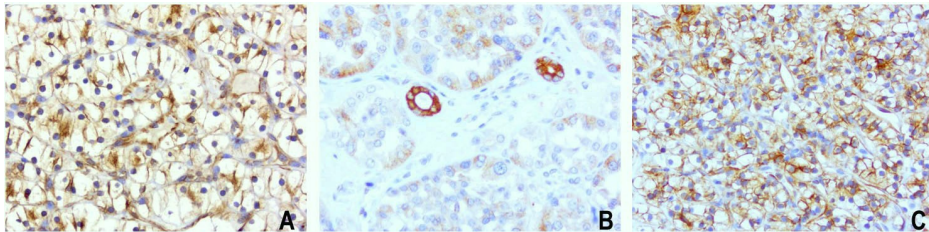
**Background:** This gene is a classical cadherin from the cadherin superfamily. The encoded protein is a calcium dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. The protein functions during gastrulation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

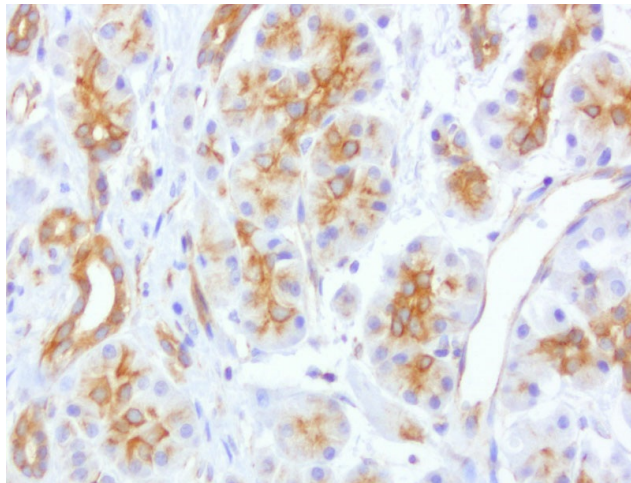
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

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

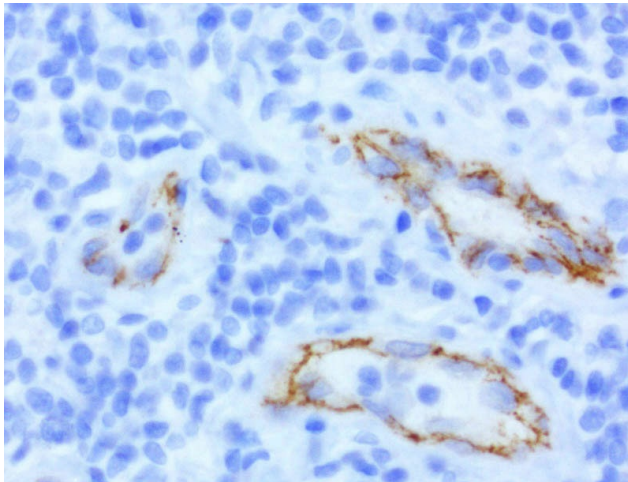
**Product images:**



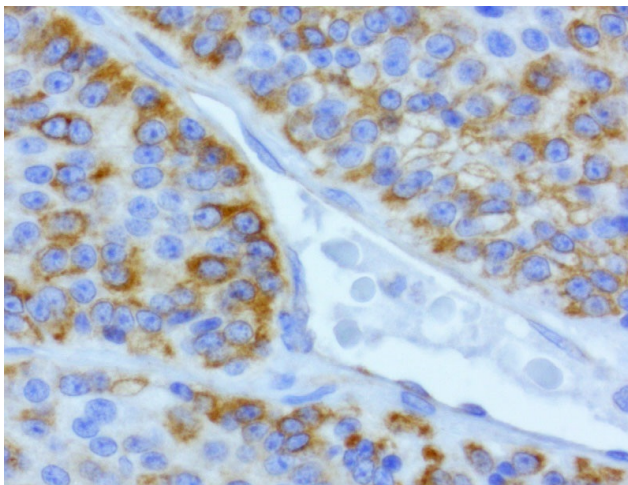
Immunohistochemical staining of paraffin-embedded of 3 human carcinoma of kidney using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker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



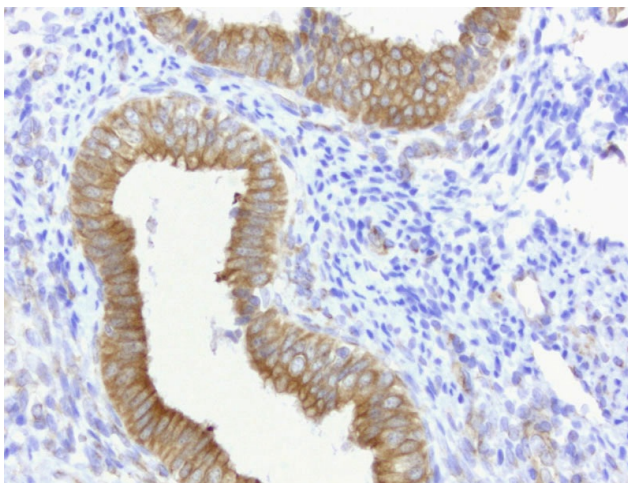
Immunohistochemical staining of paraffin-embedded of human pancreas using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min.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



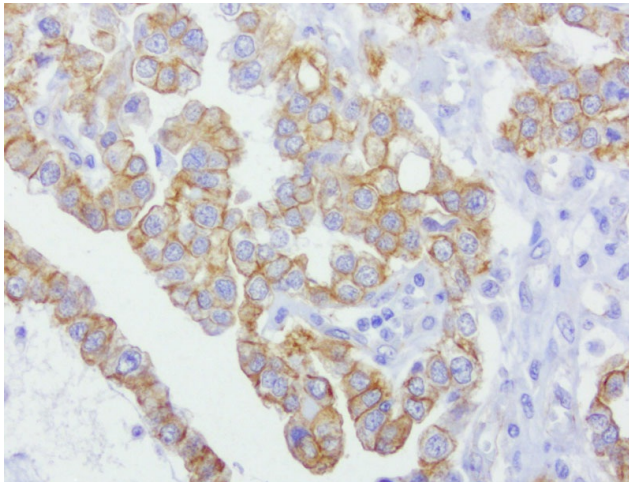
Immunohistochemical staining of paraffin-embedded of human lymph node using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high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



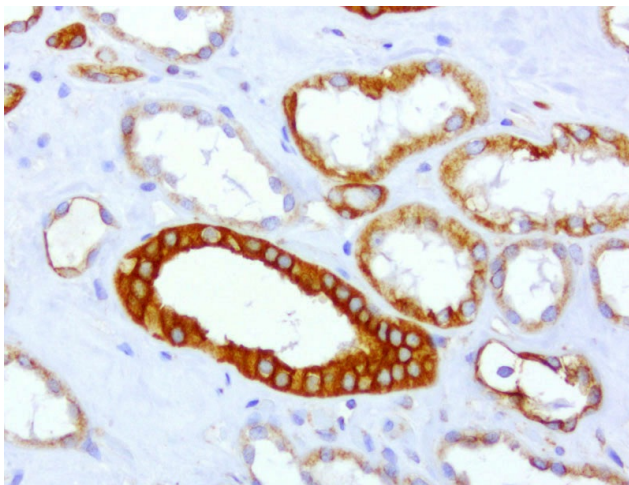
Immunohistochemical staining of paraffin-embedded of human carcinoma of the lung using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker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



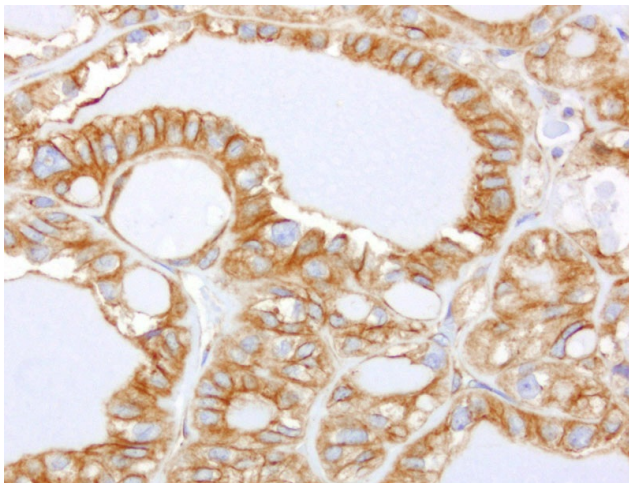
Immunohistochemical staining of paraffin-embedded of human endometrium using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high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



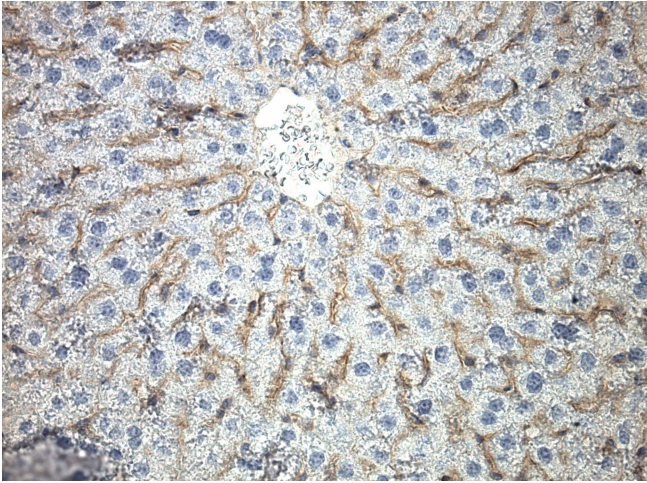
Immunohistochemical staining of paraffin-embedded of human ovarian carcinoma using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker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



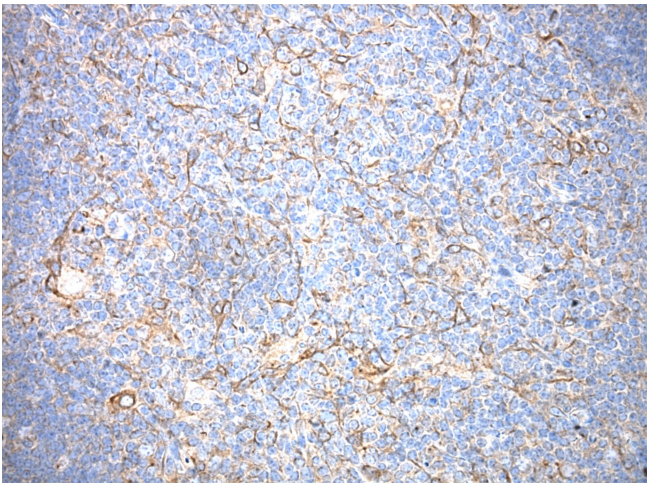
Immunohistochemical staining of paraffin-embedded of human kidney using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker high 3min.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



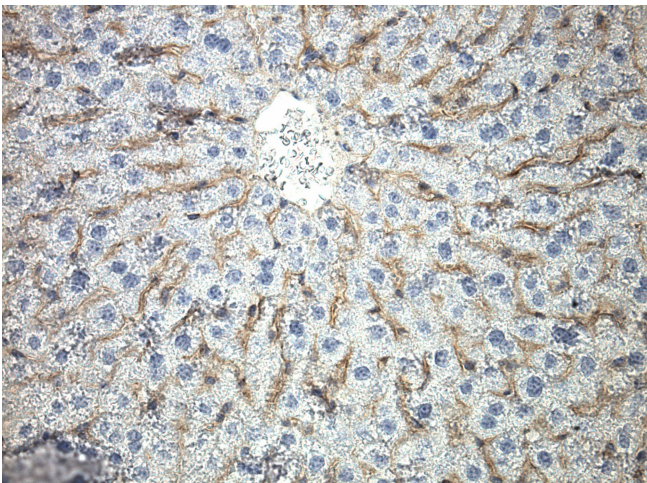
Immunohistochemical staining of paraffin-embedded of human thyroid carcinoma using anti-CDH2 clone UMAB23 mouse monoclonal antibody at 1:400 dilution of 1.0mg/mL using Polink2 Broad HRP DAB detection kit. [UM500023] requires heat-induced epitope retrieval with Citrate pH6.0 in a pressure chamber/cooker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



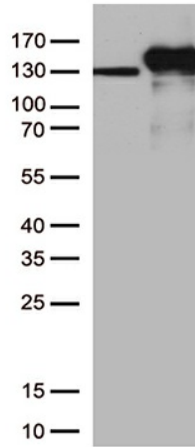
Immunohistochemical staining of paraffin-embedded mouse lung tissue using anti-CDH2 clone UMAB23 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM500023] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



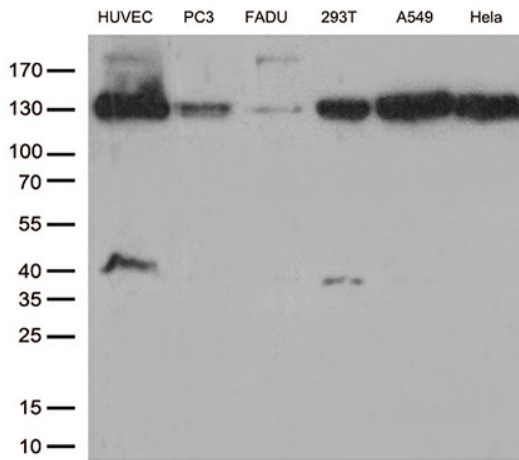
Immunohistochemical staining of paraffin-embedded mouse spleen tissue using anti-CDH2 clone UMAB23 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM500023] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



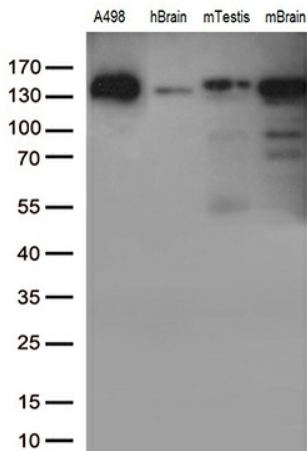
Immunohistochemical staining of paraffin-embedded mouse liver tissue using anti-CDH2 clone UMAB23 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, [UM500023] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



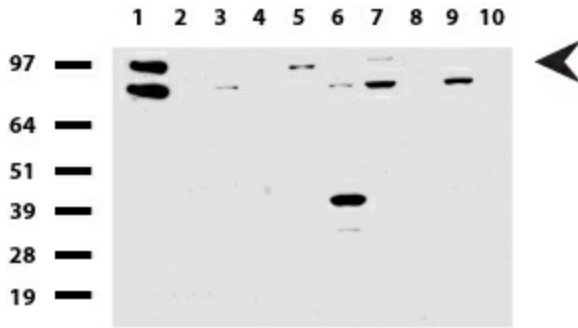
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CDH2 ([RC207170], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDH2 mouse monoclonal antibody (1:1000).



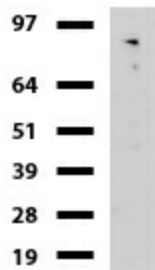
Western blot analysis of extracts (35ug) from 6 cell lines by using anti-CDH2 monoclonal antibody (1:500).



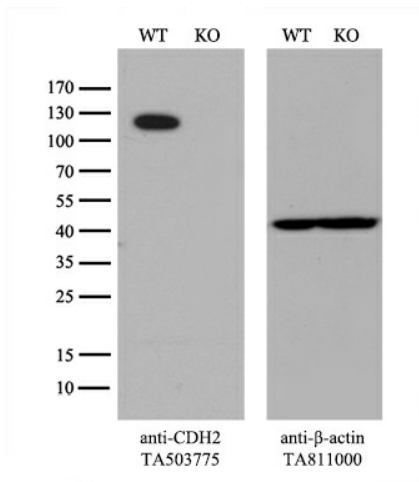
Western blot analysis of extracts (35ug) from cell line and tissues by using anti-CDH2 monoclonal antibody (1:500).



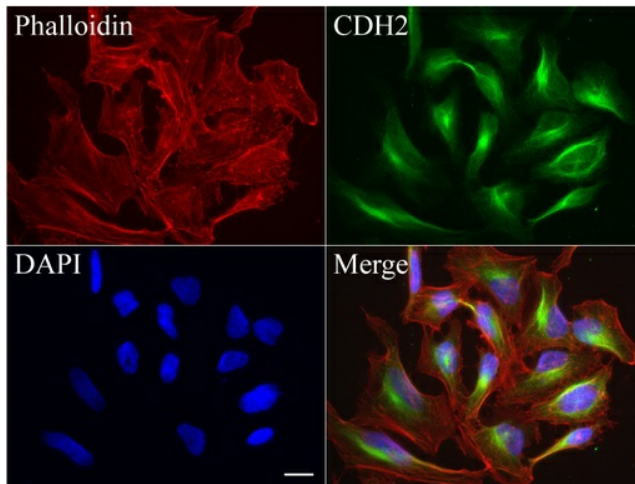
Western blot of human tissue lysates (15ug) from 10 different tissues (1: Testis, 2: Omentum, 3: Uterus, 4: Breast, 5: Brain, 6: Liver, 7: Ovary, 8: Thyroid, 9: Colon, 10: Spleen ). Dilution: 1:500.



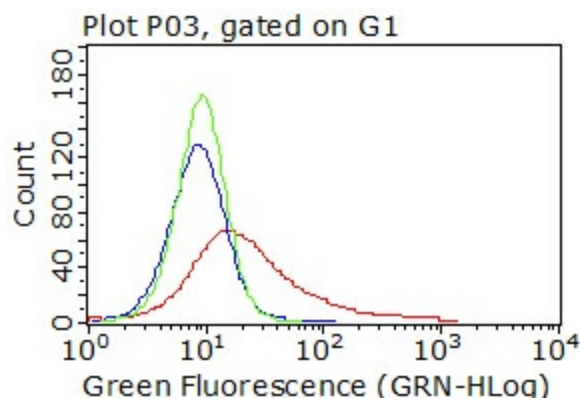
Western blot of mouse tissue lysates (20ug) from Brain. Primary antibody dilution: 1:500. Secondary antibody dilution: Mouse TrueBlot® Ultra (1:1000).



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).