# PAPSS2 monoclonal antibody (M07), clone 2A8

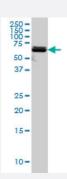
Catalog # H00009060-M07 Size 100 ug

## Applications



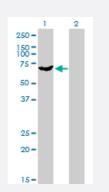
## Western Blot (Cell lysate)

PAPSS2 monoclonal antibody (M07), clone 2A8. Western Blot analysis of PAPSS2 expression in NIH/3T3 ( Cat # L018V1 ).



## Western Blot (Cell lysate)

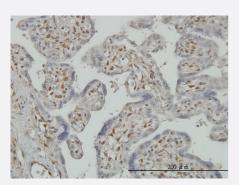
PAPSS2 monoclonal antibody (M07), clone 2A8 Western Blot analysis of PAPSS2 expression in A-431 ( Cat # L015V1 ).



## Western Blot (Transfected lysate)

Western Blot analysis of PAPSS2 expression in transfected 293T cell line by PAPSS2 monoclonal antibody (M07), clone 2A8.

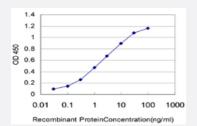
Lane 1: PAPSS2 transfected lysate(69.5 KDa). Lane 2: Non-transfected lysate.



## Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections)

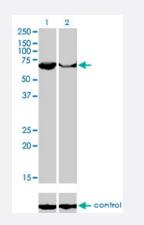
Immunoperoxidase of monoclonal antibody to PAPSS2 on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]





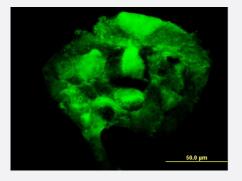
## Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged PAPSS2 is approximately 0.03ng/ml as a capture antibody.



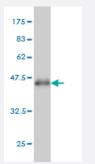
## RNAi Knockdown (Antibody validated)

Western blot analysis of PAPSS2 over-expressed 293 cell line, cotransfected with PAPSS2 Validated Chimera RNAi ( Cat # H00009060-R01V ) (Lane 2) or non-transfected control (Lane 1). Blot probed with PAPSS2 monoclonal antibody (M07), clone 2A8 (Cat # H00009060-M07 ). GAPDH ( 36.1 kDa ) used as specificity and loading control.



#### Immunofluorescence

Immunofluorescence of monoclonal antibody to PAPSS2 on A-431 cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (36.74 KDa).

Specification	
Product Description	Mouse monoclonal antibody raised against a partial recombinant PAPSS2.
Immunogen	PAPSS2 (NP_004661, 513 a.a. ~ 612 a.a) partial recombinant protein with GST tag. MW of the GS T tag alone is 26 KDa.

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## **Product Information**

Sequence	DPAGMPHPETKKDLYEPTHGGKVLSMAPGLTSVEIIPFRVAAYNKAKKAMDFYDPARHNEFDFIS GTRMRKLAREGENPPDGFMAPKAWKVLTDYYRSLE
Host	Mouse
Reactivity	Human, Mouse
Interspecies Antigen Sequence	Mouse (91); Rat (92)
lsotype	lgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa).
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

## Applications

• Western Blot (Cell lysate)

PAPSS2 monoclonal antibody (M07), clone 2A8. Western Blot analysis of PAPSS2 expression in NIH/3T3 (Cat # L018V1). <u>Protocol Download</u>

• Western Blot (Cell lysate)

PAPSS2 monoclonal antibody (M07), clone 2A8 Western Blot analysis of PAPSS2 expression in A-431 (Cat # L015V1). Protocol Download

• Western Blot (Transfected lysate)

Western Blot analysis of PAPSS2 expression in transfected 293T cell line by PAPSS2 monoclonal antibody (M07), clone 2A8.

Lane 1: PAPSS2 transfected lysate(69.5 KDa). Lane 2: Non-transfected lysate.

Protocol Download

Western Blot (Recombinant protein)

Protocol Download

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to PAPSS2 on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]

Protocol Download

• Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged PAPSS2 is approximately 0.03ng/ml as a capture antibody.

Protocol Download

- ELISA
- RNAi Knockdown (Antibody validated)

Western blot analysis of PAPSS2 over-expressed 293 cell line, cotransfected with PAPSS2 Validated Chimera RNAi (Cat # H00009060-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with PAPSS2 monoclonal antibody (M07), clone 2A8 (Cat # H00009060-M07). GAPDH (36.1 kDa) used as specificity and loading control.

Protocol Download

Immunofluorescence

Immunofluorescence of monoclonal antibody to PAPSS2 on A-431 cell. [antibody concentration 10 ug/ml]

Gene Info — PAPSS2		
Entrez GenelD	9060	
GeneBank Accession#	<u>NM_004670</u>	
Protein Accession#	<u>NP_004661</u>	
Gene Name	PAPSS2	
Gene Alias	ATPSK2, SK2	
Gene Description	3'-phosphoadenosine 5'-phosphosulfate synthase 2	
Omim ID	603005	
Gene Ontology	<u>Hyperlink</u>	

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Gene Summary	Sulfation is a common modification of endogenous (lipids, proteins, and carbohydrates) and exog enous (xenobiotics and drugs) compounds. In mammals, the sulfate source is 3'-phosphoadenosi ne 5'-phosphosulfate (PAPS), created from ATP and inorganic sulfate. Two different tissue isofor ms encoded by different genes synthesize PAPS. This gene encodes one of the two PAPS synth etases. Defects in this gene cause the Pakistani type of spondyloepimetaphyseal dysplasia. Two alternatively spliced transcript variants that encode different isoforms have been described for this gene. [provided by RefSeq
Other Designations	3-prime-phosphoadenosine 5-prime-phosphosulfate synthase 2 ATP sulfurylase/APS kinase 2 A TP sulfurylase/adenosine 5'-phosphosulfate kinase PAPS synthase 2 PAPS synthetase 2 bifuncti onal 3'-phosphoadenosine 5'-phosphosulfate synthethase 2 phosphoadenosine-

## **Publication Reference**

 PAPSS2 promotes alkaline phosphates activity and mineralization of osteoblastic MC3T3-E1 cells by crosstalk and Smads signal pathways.

Wang W, Li F, Wang K, Cheng B, Guo X. PLoS One 2012 Aug; 7(8):e43475.

Application: WB, Mouse, MC3T3 cells

Old Astrocyte Specifically Induced Substance Induces Expression of Genes Involved in Extracellular Matrix
Production But Not Classical Endoplasmic Reticulum Stress Response Genes in Pancreatic {beta}-Cells.

Ravi N Vellanki, Liling Zhang, Michelle A Guney, Jonathan V Rocheleau, Maureen Gannon, Allen Volchuk.

Endocrinology 2010 Sep; 151(9):4146.

Application: WB-Ce, WB-Tr, Rat, INS-1 cells

## Pathway

- Metabolic pathways
- Purine metabolism
- <u>Selenoamino acid metabolism</u>
- Sulfur metabolism

#### Disease

- Alzheimer Disease
- Diastrophic dysplasia

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- Genetic Predisposition to Disease
- Osteoarthritis
- Tobacco Use Disorder