

## Product datasheet for **TA503011**

### **AK3L1 (AK4) Mouse Monoclonal Antibody [Clone ID: OTI3B1]**

#### **Product data:**

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Clone Name:             | OTI3B1  |
| Applications:           | FC, IF, IHC, WB   |
| Recommended Dilution:   | WB 1:500~2000, IHC 1:150, IF 1:100, FLOW 1:100  |
| Reactivity:             | Human, Dog, Rat, Monkey, Mouse  |
| Host:                   | Mouse   |
| Isotype:                | IgG1  |
| Clonality:              | Monoclonal  |
| Immunogen:              | Full length human recombinant protein of human AK4(NP_037542) produced in HEK293 cell.  |
| Formulation:            | PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.  |
| Concentration:          | 1 mg/ml   |
| 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: | 25.1 kDa  |
| Gene Name:              | adenylate kinase 4  |
| Database Link:          | <a href="#">NP_037542</a><br><a href="#">Entrez Gene 11639 Mouse</a> <a href="#">Entrez Gene 29223 Rat</a> <a href="#">Entrez Gene 489554 Dog</a> <a href="#">Entrez Gene 698560 Monkey</a> <a href="#">Entrez Gene 205 Human</a><br><a href="#">P27144</a> |



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**Background:**

This gene encodes a member of the adenylate kinase family of enzymes. The encoded protein is localized to the mitochondrial matrix. Adenylate kinases regulate the adenine and guanine nucleotide compositions within a cell by catalyzing the reversible transfer of phosphate group among these nucleotides. Five isozymes of adenylate kinase have been identified in vertebrates. Expression of these isozymes is tissue-specific and developmentally regulated. A pseudogene for this gene has been located on chromosome 17. Three transcript variants encoding the same protein have been identified for this gene. Sequence alignment suggests that the gene defined by NM\_013410, NM\_203464, and NM\_001005353 is located on chromosome 1. [provided by RefSeq]

**Synonyms:**

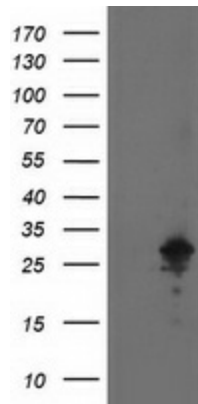
AK3; AK3L1; AK3L2; AK 4

**Protein Families:**

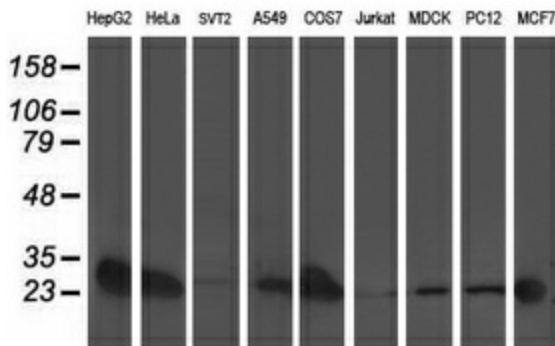
Druggable Genome

**Protein Pathways:**

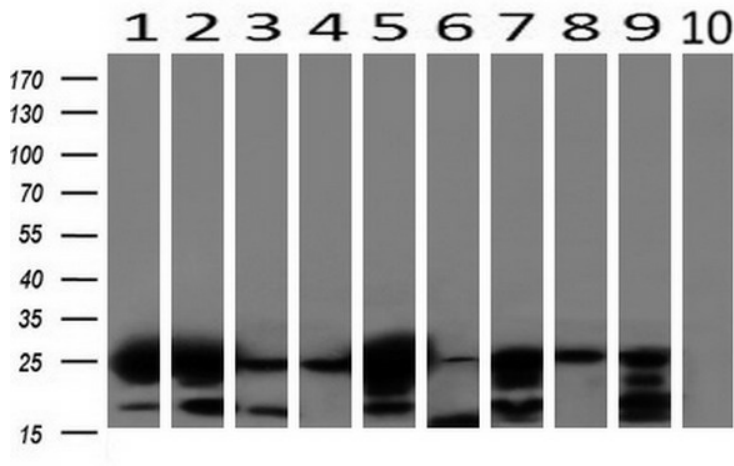
Metabolic pathways, Purine metabolism

**Product images:**


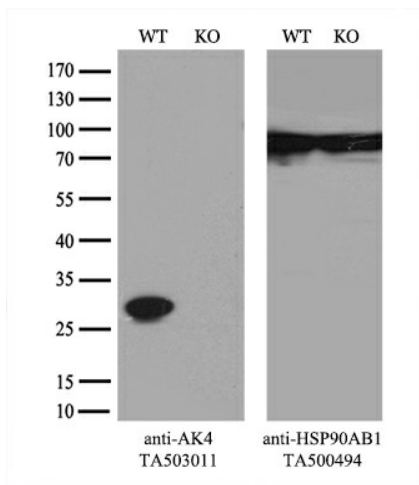
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AK4 (Cat# [RC220572], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-AK4 (Cat# TA503011). Positive lysates [LY402259] (100ug) and [LC402259] (20ug) can be purchased separately from OriGene.



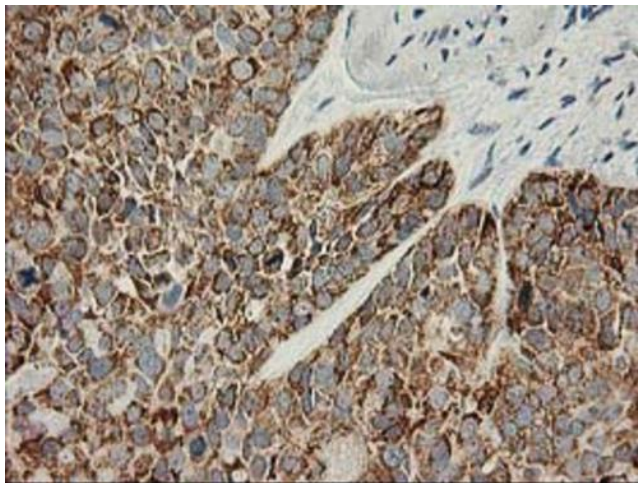
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-AK4 monoclonal antibody.



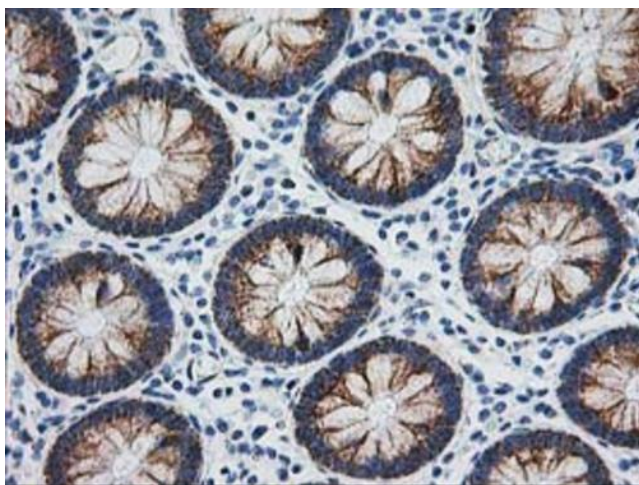
Western blot analysis of extracts (10ug) from 10 Human tissue by using anti-AK4 monoclonal antibody at 1:200 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon;10: spleen).



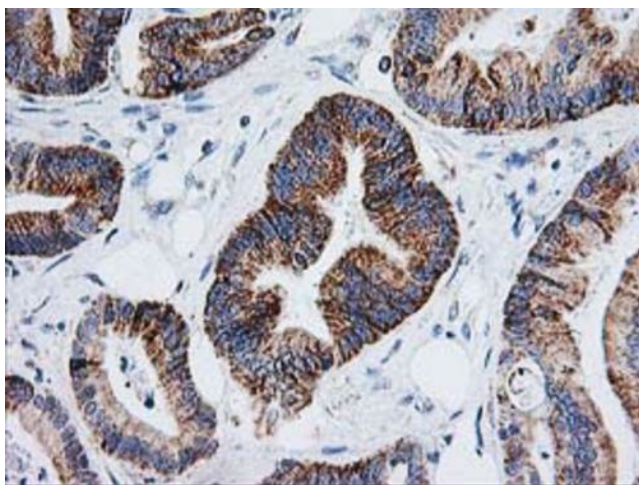
Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and AK4-Knockout HeLa cells (KO, Cat# [LC834937]) were separated by SDS-PAGE and immunoblotted with anti-AK4 monoclonal antibody TA503011 (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90 antibody as a loading control.



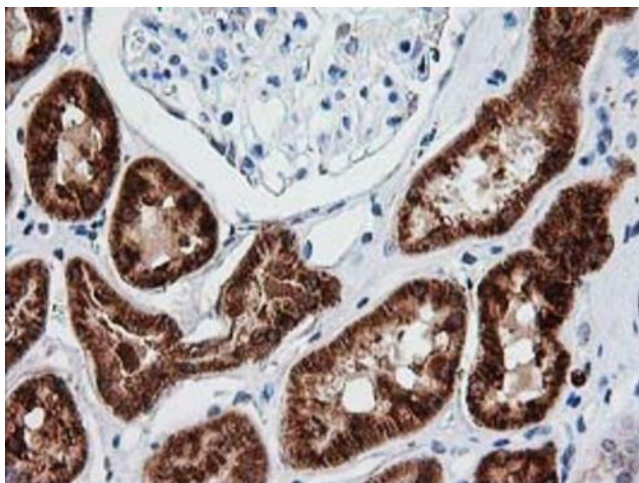
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Human colon tissue within the normal limits using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

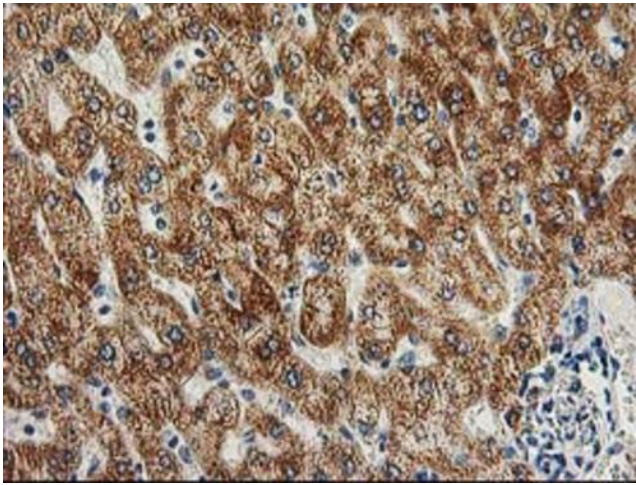


Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

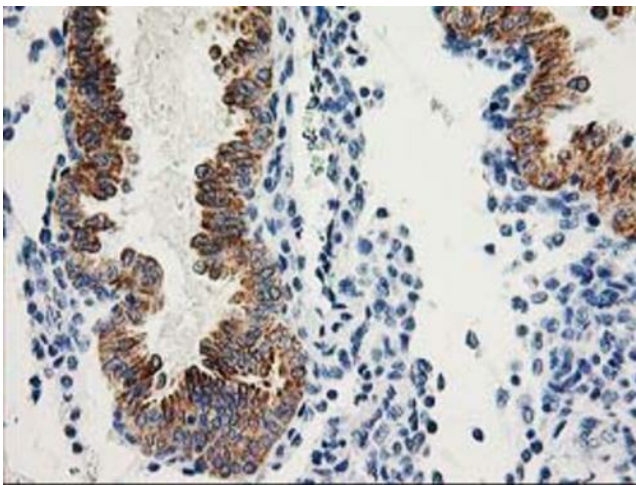


Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

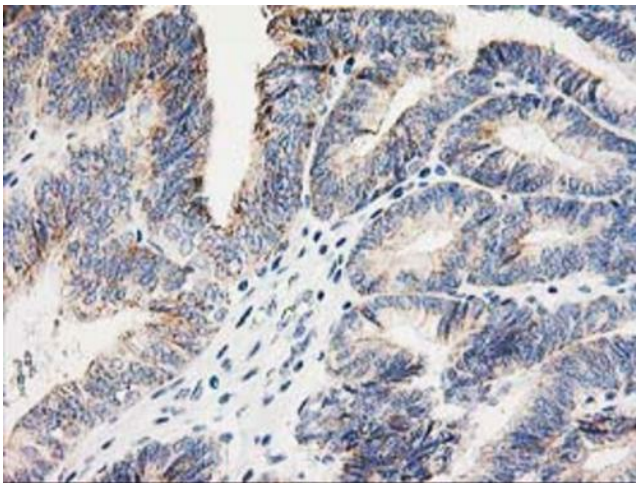




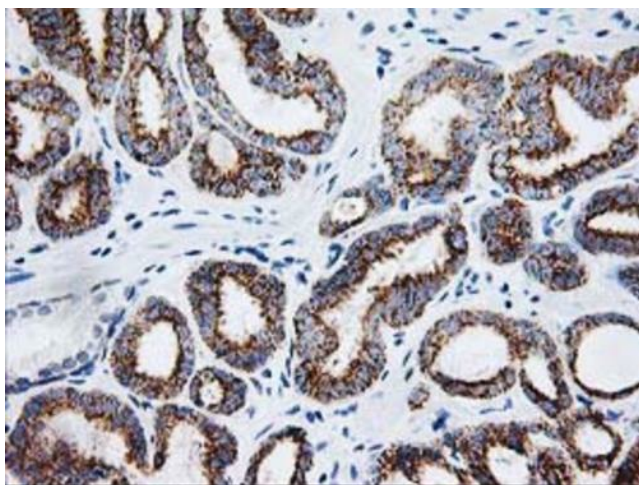
Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



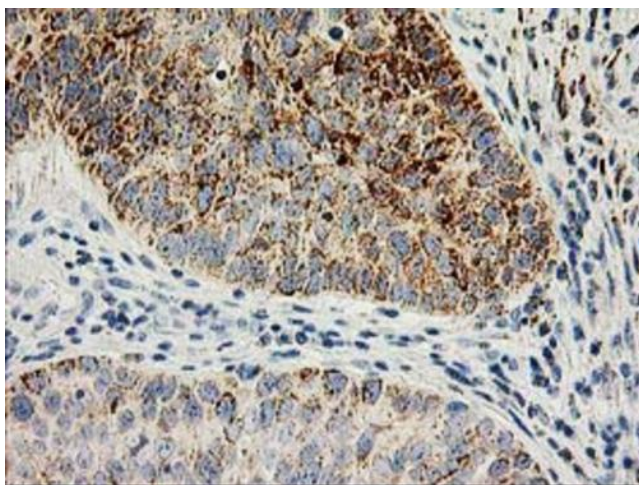
Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



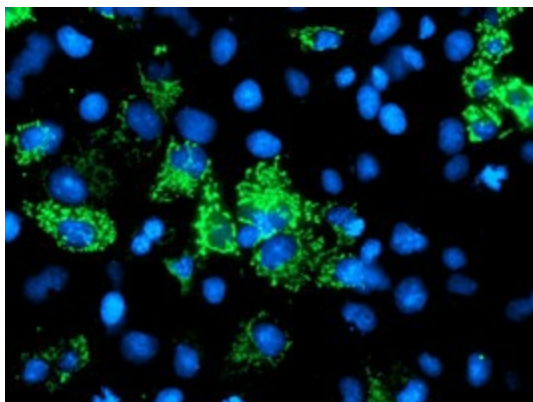
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



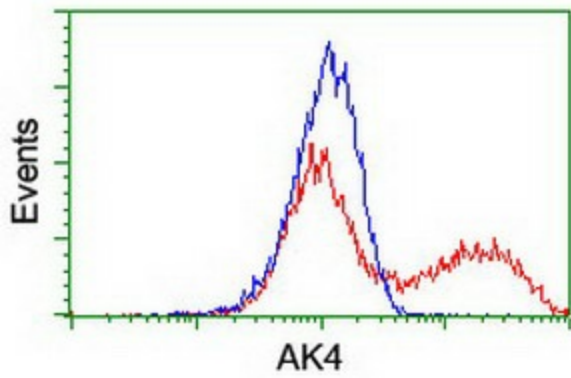
Immunohistochemical staining of paraffin-embedded Carcinoma of Human prostate tissue using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of Human bladder tissue using anti-AK4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-AK4 mouse monoclonal antibody (TA503011) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY AK4 (RC220572).



HEK293T cells transfected with either [RC220572] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-AK4 antibody (TA503011), and then analyzed by flow cytometry.