

Product Specification Sheet

Mouse Uroplakin-3a (UPK3A) Antibodies

<input type="checkbox"/> Cat. # AB-23006-A	Rabbit Anti-mouse UPK3A (UPK3A- phosphor Y266) IgG (aff pure)	SIZE: 100 ul
<input type="checkbox"/> Cat. # AB-23006-P	Mouse UPK3A (UPK3A- phosphor Y266) peptide	SIZE: 100 ug
<input type="checkbox"/> Cat. # AB-23006-CP	Mouse UPK3A (non-phosphor) control peptide	SIZE: 100 ug

Uroplakins (UPK) are integral membrane proteins that form 2-dimensional crystalline arrays termed urothelial plaques that cover more than 90% of the apical urothelial surface. The asymmetric unit membrane (AUM) forms the apical plaques of urothelium and is believed to strengthen the urothelial apical surface and prevent the cells from rupturing during bladder distention. The 4 major conserved integral membrane proteins of the AUM are UPK1A, UPK1B, UPK2, and UPK3A. Uroplakin (UP) 3a. UPIIIa protein, is a major uroplakin with a potential cytoplasmic signaling domain, in bacterial invasion and apoptosis and is critical for urinary tract development and function. In response to FimH adhesin binding, the UPIIIa cytoplasmic tail undergoes phosphorylation on a specific threonine residue by casein kinase II, followed by an elevation of intracellular calcium. Pharmacological inhibition of these signaling events abrogates bacterial invasion and urothelial apoptosis in vitro and in vivo.¹ Studies show that in *Xenopus laevis*, sperm-egg interaction promotes partial proteolysis and/or tyrosine phosphorylation of uroplakin III (UPIII) and the tyrosine kinase Src, which both localize to the cholesterol-enriched egg membrane microdomains (MDs).²

Protein Function Component of the asymmetric unit membrane (AUM); a highly specialized biomembrane elaborated by terminally differentiated urothelial cells. May play an important role in AUM-cytoskeleton interaction in terminally differentiated urothelial cells. It also contributes to the formation of urothelial glycocalyx which may play an important role in preventing bacterial adherence

Subcellular Location Endoplasmic reticulum membrane; Single-pass type I membrane protein

Protein name Uroplakin-3a, Uroplakin III

Gene name UPK3A

Synonyms Upk3

Similarity Belongs to the uroplakin-3 family.

Source of Antigen and Antibodies

Antigen	15-aa peptides of Mouse Uroplakin-3a (UPK3A); (protein accession # Q9JKX8) (designated control Upk3a- phosphor peptide AB-23006-P) conjugated to KLH; Epitope location, C terminal and non-phosphor control peptide designated as AB-23006-CP. Cytoplasmic.
Ab Host/type	Rabbit, polyclonal Aff pure IgG (cat # AB-23006-A) purified over the antigen column
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**This product is for In vitro research use only.*

Related materials available from ADI

Antibodies:

ReadyBlot **Kidney Protein Explorer**-Study distribution of protein in various regions of the Mouse/rat kidney using the pre-made protein blots; Western blot recycling kit-Use the same blot for WNK1-4.

AB-23006-A-P

130822VP

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

- 100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

- 100 ug/100 ul solution lyophilized powder

Supplied in **Buffer:** PBS pH 7.5,

Reconstitute powder in PBS at 1 mg/ml.