

## Product datasheet for **AP20276PU-N**

### BTK Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of BTK protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 77 kDa
Gene Name:	Bruton tyrosine kinase
Database Link:	<a href="#">Entrez Gene 12229 Mouse</a> <a href="#">Entrez Gene 367901 Rat</a> <a href="#">Entrez Gene 695 Human</a> <a href="#">Q06187</a>



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**Background:**

Bruton tyrosine kinase (BTK) is a member of the BTK/Tec family of cytoplasmic tyrosine kinases. Like other BTK family members, it contains a pleckstrin homology (PH) domain, Src homology SH3 and SH2 domains. BTK plays an important role in B cell development. Activation of B cells by various ligands is accompanied by BTK membrane translocation mediated by its PH domain binding to phosphatidylinositol-3,4,5-trisphosphate. The membrane located BTK is active and associated with transient phosphorylation of two tyrosine residues, Tyr551 and Tyr223. Tyr551 in the activation loop is transphosphorylated by the Src family tyrosine kinase, leading to autophosphorylation at Tyr223 within the SH3 domain, which is necessary for full activation. The activation of BTK is negatively regulated by PKC beta through phosphorylation of BTK at Ser180, which results in reduced membrane recruitment, transphosphorylation and subsequent activation. The PKC/BTK inhibitory signal is likely to be a key determinant of the B cell receptor signaling threshold to maintain optimal BTK activity.

**Synonyms:**

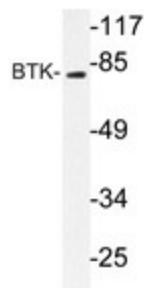
Bruton tyrosine kinase, AGMX1, ATK, BPK

**Protein Families:**

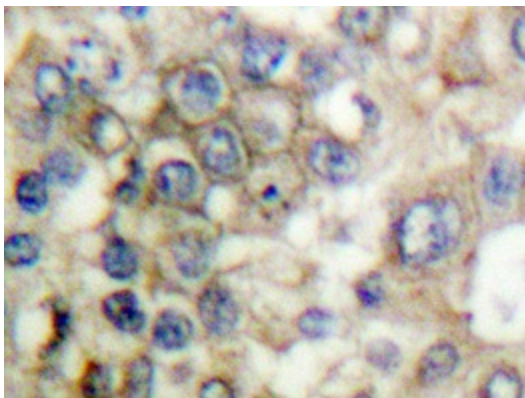
Druggable Genome, Protein Kinase

**Protein Pathways:**

B cell receptor signaling pathway, Fc epsilon RI signaling pathway, Primary immunodeficiency

**Product images:**


Western blot analysis of BTK antibody (AP20276PU-N) in extracts from HeLa cells.



Immunohistochemistry analyzes of BTK antibody (AP20276PU-N) in paraffin-embedded human breast carcinoma tissue.