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Product datasheet for TA355221

Aurora A (AURKA) Mouse Monoclonal Antibody [Clone ID: JLM28]

Product data:

Product Type:	Primary Antibodies
Clone Name:	JLM28
Applications:	IHC, WB
Recommended Dilution:	IHC: 1:50 WB: 1:500-1:1000
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	131 amino acid region of the N-terminus of human Aurora Kinase 2 molecule
Specificity:	Human Aurora Kinase 2
Formulation:	Liquid tissue culture supernatant containing 15 mM sodium azide as a preservative
Conjugation:	Unconjugated
Storage:	Store at 2-8°C
Stability:	12 months
Gene Name:	aurora kinase A
Database Link:	Entrez Gene 6790 Human O14965

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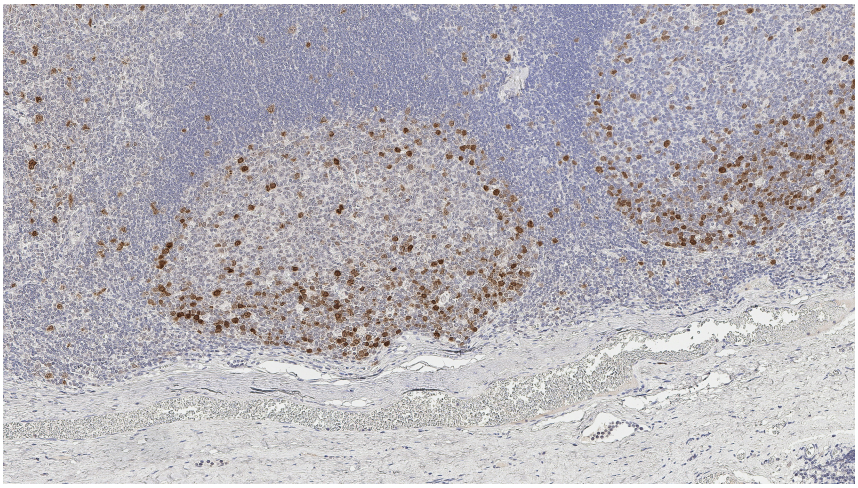
Background: Aurora Kinase 1 and 2 encode cell cycle-regulated serine/threonine kinases that are involved in microtubule spindle activities during mitosis and meiosis. Aurora Kinase 2, also known as AurkA, STK15, BTAK, ARK1 and AIK1, localizes to interphase and mitotic centrosomes and to the spindle poles.
It is degraded rapidly after G2/M phase release in mammalian cells. Aurora Kinase 2 is reported to be expressed at high levels in testis and various proliferating cell lines, including HeLa cells. Aurora Kinase 2 is regulated by phosphorylation which is important both for its activity and stability.
The inhibition of its activity leads to the formation of a monopolar spindle because its activity is necessary for centrosome separation. Aurora Kinase 2 overexpression leads to centrosome amplification, chromosome instability and transformation in mammalian cells.
Overexpression of both active and inactive Aurora Kinase 2 can lead to polyploidy.
This suggests that Aurora Kinase 2 can behave as a dominant negative mutant and inhibit other aurora kinases. When inactive kinase is expressed; however, the cells eventually die and do not become immortalized, unlike with the active kinase.

Synonyms: AIK; ARK1; AURA; Aurora-A; AURORA2; BTAK; hARK1; MGC34538; OTTHUMP00000031344; OTTHUMP00000166071; STK6; STK7; STK15

Product images:



HeLa cell line: immunohistochemical staining for Aurora Kinase. Note nuclear staining of a proportion of cells. Aurora Kinase 2: clone JLM28