

Basic Information

Product Name	Anti-ADO DyLight 488 Conjugated Antibody
Gene Name	ADO
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	FCM
Contents	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% Na ₃ N.
Immunogen	E. coli-derived human ADO recombinant protein (Position: E49-E261). Human ADO shares 90.1% amino acid (aa) sequence identity with mouse ADO.
Fluorophores	Amax=488nm; Emax=515-545nm
Conjugate	DyLight 488
Concentration	500ug/ml
Purification	Immunogen affinity purified.
Dilution Ratios	Flow cytometry (FCM):1-3 µg/1x10 ⁶ cells

Storage

At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.

Background Information

Human thiol dioxygenases include cysteine dioxygenase (CDO) and cysteamine (2-aminoethanethiol) dioxygenase (ADO). CDO adds 2 oxygen atoms to free cysteine, whereas ADO adds 2 oxygen atoms to free cysteamine to form hypotaurine. It is demonstrated that mouse Ado has strong and specific dioxygenase activity in vitro towards cysteamine but not cysteine. Recombinant Ado was shown to bind iron. Overexpression of Ado in HepG2/C3A cells increased the production of hypotaurine from cysteamine. Similar results were found with human ADO. When endogenous expression of ADO was reduced by RNA-mediated interference, hypotaurine production decreased. It is also noted that the demonstration of high levels of ADO in brain challenges the previous assumption that most of the taurine in the brain is a consequence of CDO activity.

Selected Validation Data

Product datasheet
**Anti-ADO DyLight 488 Conjugated
Antibody**
Catalog Number: A02700-Dyl488

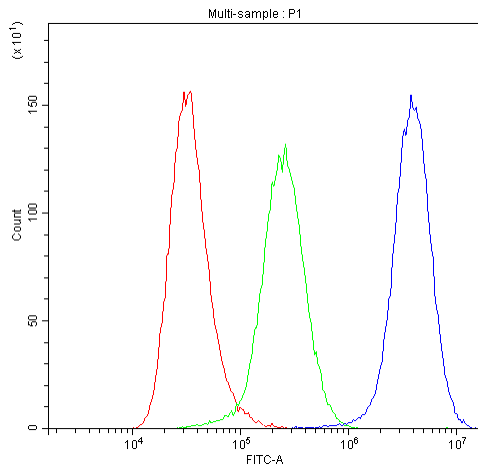


Figure 1. Flow Cytometry analysis of A549 cells using anti-Human ADO antibody (A02700-Dyl488). Overlay histogram showing A549 cells stained with A02700-Dyl488 (Blue line). Isotype control antibody (Green line) was rabbit IgG (1 μ g/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.