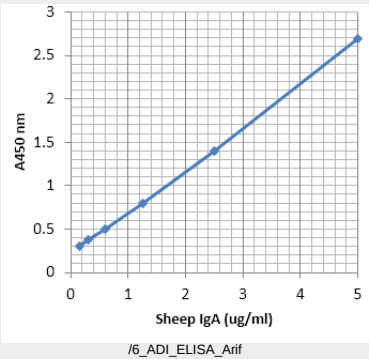
Sheep IgA ELISA Kit # 7640, 96 tests

Sheep IgA ELISA is a sandwich ELISA for the detection and measurement of sheep IgA in serum, plasma or other biological fluids. This kit is for research use only (RUO).



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Sheep IgA ELISA Kit Features

Standards Range 0.15-5 ug/ml (purified sheep IgA)
Sensitivity: 01 ug/ml
Precision: Intra-Assay %CV: 5; Inter-Assay %CV: 9
Assay time: 135 minute at Room temp (25-28oC on a shaker; 60+45+20)
Specificity: Specific for sheep IgA with no significant detection of other sheep antibodies or proteins.

Samples: Serum, plasma or other biological fluids can be used. Normal serum should be diluted 1:2000 (range is 1:000-1:5000 in most samples) but it should be optimized for a given sample population. This kit can be optimized to measure IgA in sheep milk.

This kit is for measuring IgA in Sheep serum or plasma or other biological fluids.

For in vitro research use only (RUO).

Assay Procedure: Allow all reagents to reach room temperature. Arrange required number of strips on the plate.

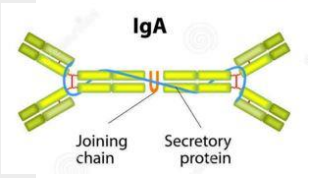
Step 1. Add 100 µl of pre-diluted standards, controls and samples (diluted) into respective wells. Mix gently and incubate at room temp. for 60 mins on an orbital shaker (25-28oC; 150rpm). **Note**: It is possible to use incubation without the shaker but the range may be less and it can be compensated by increasing time to 90 mins if desired.

Step 2. Aspirate and wash 3X with 1X wash buffer. Add 100 ul of 1X HRP conjugate) into all wells; mix gently and incubate at RT for 45 mins. **Note**: It is possible to use incubation without the shaker but the range may be less and it can be compensated by increasing time to 60 mins if desired.

Step 3. Aspirate and wash 4X with 1X wash buffer. Tap plates over paper towels. Add 100 ul of TMB Substrate. Mix gently and incubate for 20 min at RT on an orbital shaker. Blue color develops in positive wells. Note: It is possible to incubate for 20 mins +5 mins so as to get maximum color A450=2.5-3.00 (within the linear range of the ELISA reader).

Step 4. Add 100 ul of stop solution into each well and mix gently (blue color turns yellow). Measure yellow color at 450 nm. Standard range is plotted and the sample values are calculated from the standard curve.

General Information



Immunoglobulin A (IgA) is an antibody that plays a critical role in mucosal immunity. More IgA is produced in mucosal linings than all other types of antibody combined; between three and five grams are secreted into the intestinal lumen each day. This accumulates to 75% of the total immunoglobulin produced in the entire body. IgA has two subclasses (IgA1 and IgA2) and can exist in a dimeric form called secretory IgA (sIgA). In its secretory form, IgA is the main immunoglobulin found in mucous secretions, including tears, saliva, colostrum and secretions from the genitourinary tract, gastrointestinal tract, prostate and respiratory epithelium. It is also found in small amounts in blood. The secretory component of sIgA protects the immunoglobulin from being degraded by proteolytic enzymes, thus sIgA can survive in the harsh gastrointestinal tract environment and provide protection against microbes that multiply in body secretions. IgA is a poor activator of the complement system, and opsonizes only weakly. Its heavy chains are of the type α. In the blood, IgA interacts with an Fc receptor called FcαRI (or CD89), which is expressed on immune effector cells, to initiate inflammatory reactions. Ligation of FcαRI by IgA containing immune complexes causes antibody-dependent cell-mediated cytotoxicity (ADCC), degranulation of eosinophils and basophils, phagocytosis by monocytes, macrophages, and neutrophils, and triggering of respiratory burst activity by polymorphonuclear leukocytes. Polymeric IgA (mainly the secretory dimer) is produced by plasma cells in the lamina propria adjacent to mucosal surfaces. It binds to the polymeric immunoglobulin receptor on the basolateral surface of epithelial cells, and is taken up into the cell via endocytosis.

Related Items

7520Goat IgG ELISA Kit 7530 Goat IgM ELISA Kit 7540 Goat IgA ELISA Kit, 96 tests, Quantitative
7540Goat IgE ELISA Kit
7610-Fab Sheep/Ovine Fab ELISA Kit 7615-Fc Sheep IgG-Fc ELISA Kit

7620Sheep IgG ELISA Kit 7630 Sheep IgM ELISA Kit 7640 Sheep IgA ELISA Kit
7650Sheep IgE ELISA Kit

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