

Oleclumab ELISA Kit

Summary

Catalog No.	KDD46601
Alternative Names	MEDI-9447, , CAS: 1803176-05-7
Applications	Used for the quantitative determination of Oleclumab concentration in serum and plasma.
Stability and Storage	When the kit was stored at the recommended temperature for 6 months, the signal intensity decreased by less than 20%.
Detection method	Colorimetric
Sample type	Plasma, Serum
Assay type	Quantitative
Sensitivity	18.25 ng/mL
Range	31.25 - 2,000 ng/mL
Recovery	80-120%
Shipping	2-8 °C
Note	For Research Use Only.

Description

PRINCIPLE OF THE ASSAY This assay employs the quantitative competitive enzyme immunoassay technique. Recombinant Human CD73 has been pre-coated onto a microplate. Standards or samples are premixed with biotin-labeled antibody and then pipetted into the wells. Oleclumab in the sample competitively binds to the pre-coated protein with biotin-labeled Oleclumab. After washing away any unbound substances, Streptavidin-HRP is added to the wells. Following a wash to remove any unbound

enzyme reagent, a substrate solution is added to the wells and color develops in inversely proportion to the amount of Oleclumab bound in the initial step. The color development is stopped and the intensity of the color is measured.

Background

Oleclumab (as known as MEDI9447) is a human monoclonal antibody (mAb) being investigated for the treatment of various types of cancer like Solid Tumors, Pancreatic and Colorectal cancer. It is a monoclonal antibody against the ectoenzyme CD73 (cluster of differentiation 73), also known as 5'-nucleotidase (5'-NT; ecto-5'-nucleotidase; NT5E) with potential antineoplastic activity. This drug was developed by MedImmune, LLC and AstraZeneca plc. In contrast with many other cancer immunotherapy agents such as checkpoint inhibitors or T cell agonists, MEDI9447 drives changes in both myeloid and lymphoid infiltrating leukocyte populations within the tumor microenvironment. Changes include significant increases in CD8 effector cells and activated macrophages, as well as a reduction in the proportions of myeloid-derived suppressor cells (MDSC) and regulatory T lymphocytes. Furthermore, these changes correlate directly with responder and non-responder subpopulations within the arms of animal studies using syngeneic tumors. Data showing additive activity between MEDI9447 and other immune-mediated therapy antibodies demonstrates the importance of relieving adenosine-mediated immunosuppression within tumors.

Precision

Intra-Assay Precision (Precision within an assay): <20%

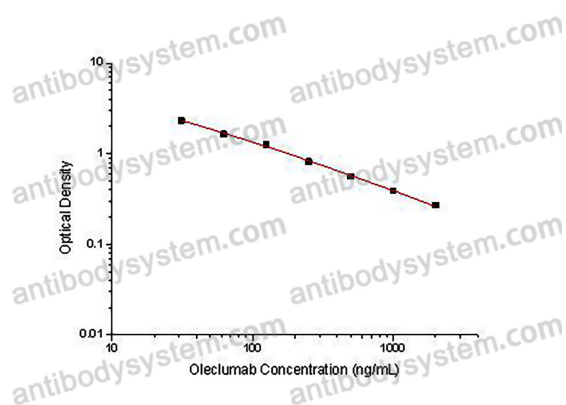
Three samples of known concentration were tested sixteen times on one plate to assess intra-assay precision.

Inter-Assay Precision (Precision between assays): <20%

Three samples of known concentration were tested in twenty four separate assays to assess inter-assay precision.

	Intra-Assay Precision			Inter-Assay Precision		
Sample	1	2	3	1	2	3
n	16	16	16	24	24	24
Mean (ng/mL)	2060.3	373.5	74.5	1709.3	354.3	83.4
Standard deviation	398.6	65.3	12.7	303.7	68.8	15.1
CV (%)	19.3	17.5	17.0	17.8	19.4	18.1

Data Image



Experiment Example

CALCULATION OF RESULTS

Average the duplicate readings for each standard and sample. Construct a standard curve by plotting the mean absorbance for each standard on the Y-axis against the concentration on the X-axis and draw a best fit curve through the points on the graph. Do not include the blank in the standard curve. The data may be linearized by plotting the log of the Oleclumab concentrations versus the log of the O.D. and the best fit line can be determined by regression analysis. This procedure will produce an adequate but less precise fit of the data. If samples have been diluted, the concentration read from the standard curve must be multiplied by the dilution factor.