Datasheet for ABIN5012826

Bevacizumab Specific ELISA Kit

2 Images

Go to Product page

Overview

Quantity:	96 tests
Target:	Bevacizumab Specific
Reactivity:	Human, Monkey, Mouse, Rat
Method Type:	Sandwich ELISA
Application:	ELISA

Product Details

Purpose:	Enzyme immunoassay for the specific quantitative determination of free Bevacizumab in serum and plasma
Sample Type:	Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	There is no cross reaction with any other proteins present in native human serum. A screening test was performed with 48 different native human sera. All produced OD450/620 nm values (ranged from 0.022 to 0.042) less than the mean OD (0.132) of standard D (6 ng/mL). In addition, binding of Bevacizumab is inhibited by recombinant human VEGF-A in a concentration dependent manner. Therefore, the Bevacizumab ELISA (mAb-Based) measures the biologically active free form of Bevacizumab, i.e. not pre-occupied by VEGF. No cross reaction was observed with sera spiked with the other therapeutic antibodies including Infliximab, Adalimumab, Etanercept, Rituximab, Tocilizumab, Trastuzumab, Aflibercept and Golimumab at concentrations up to 2 mg/mL. All produced mean OD450/620 nm values ranged from 0.009 to 0.022. In addition, there is no cross reaction with Ranibizumab as well. Because when anti-

Product Details

	human kappa monoclonal antibody was used as the conjugate instead, Ranibizumab did not bind to MAY-2B5 mAb-coated plate.
Components:	plate, standards, assay buffer, conjugate, TMB, HCl, wash buffer
Material not included:	normal lab equipment for performing ELISA assays

Target Details

Target:	Bevacizumab Specific
Background:	The drug Bevacizumab (trade name Avastin®) is a recombinant human IgG1: monoclonal antibody specific for all human vascular endothelial growth factor-A (VEGF-A) isoforms and it has been approved by the FDA as a first-line treatment for metastatic colorectal cancer in combination with chemotherapy. Furthermore, VEGF is implicated in intraocular neovascularization associated with diabetic retinopathy and age-related macular degeneration. According to the data indicated in the prescribing information and the literature, serum/plasma Bevacizumab concentration of patients, under the treatment of Bevacizumab as an intravenous (IV) infusion at various doses of 5-15 mg/kg every 2-3 weeks, reported to be ranging from 10 µg/mL as the Cmin to 200 µg/mL as the Cmax. Serum through levels might be related to predict some clinical outcome during maintenance therapy. It was also possible that the surveillance of circulating concentration during maintenance therapy represents a direct and/or indirect factor for some other side effects. In this context, identification of biomarkers for (non-) response and risk factors for adverse drug reactions that might be related to serum drug levels and maintaining the effective concentration in order to potentially avoid some side effects with a reliable method might be beneficial.

Application Details

Sample Volume:	20 µL
Assay Time:	1.5 h
Plate:	Pre-coated
Protocol:	This ELISA is based on Bevacizumab-specific mouse monoclonal antibody (catcher Ab, clone MAY-2B5). Standards and diluted samples are incubated in the microtiter plate coated with IG-MAY-2B5 mAb. After incubation, the wells are washed. A horseradish peroxidase (HRP)-conjugated anti-human IgG monoclonal antibody is added and binds to the Fc part of Bevacizumab. Following incubation, wells are washed and the bound enzymatic activity is detected by addition of chromogen-substrate. The color developed is proportional to the

Application Details

	amount of Bevacizumab in the sample or standard. Results of samples can be determined by using the standard curve. Binding of Bevacizumab to the solid phase, pre-coated with MAY-2B5, is inhibited by human VEGF-A in a concentration dependent manner. Therefore, the Bevacizumab ELISA (mAb-Based) measures the free form of Bevacizumab.
Reagent Preparation:	Just the wash buffer has to be prepared by diluting the stock solution 1:20. All other reagents are ready to use.
Sample Collection:	normal serum or plasma collection
Sample Preparation:	dilute the samples 1:20 with assay buffer
Calculation of Results:	The results are read from a standard curve.
Assay Precision:	< 10%
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide
Storage:	4 °C
Expiry Date:	24 months

Images

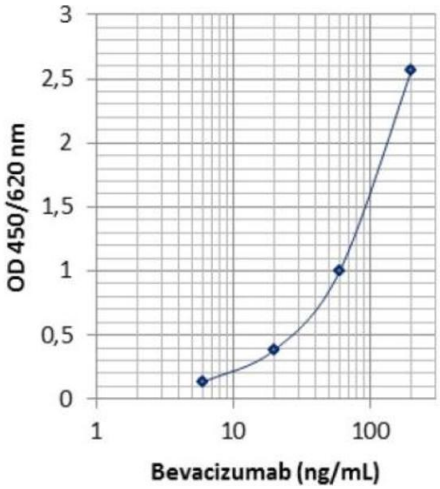

Image 1.

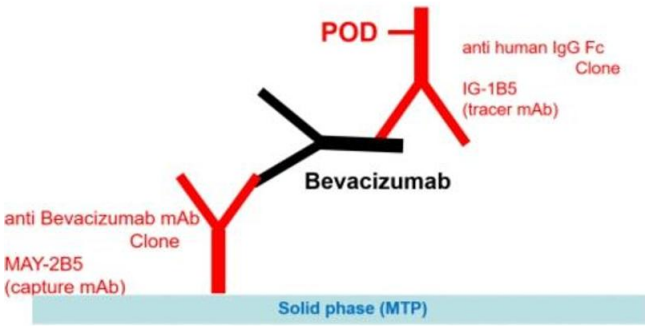
POD
anti human IgG Fc
Clone
IG-1B5
(tracer mAb)
Bevacizumab
anti Bevacizumab mAb
Clone
MAY-2B5
(capture mAb)
Solid phase (MTP)

Image 2.