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Datasheet for ABIN5012829  
**Cetuximab Specific ELISA Kit**

2 Images

Overview

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

Product Details

Purpose:	Enzyme immunoassay for the specific quantitative determination of free Cetuximab 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 0.011 to 0.058) less than the mean OD (0.125) of standard D (6 ng/mL). In addition, binding of Cetuximab is inhibited by recombinant human epidermal growth factor receptor (hEGFR) protein in a concentration dependent manner. Therefore, the ImmunoGuide Cetuximab ELISA (mAb-Based) measures the biologically active free form of Cetuximab, i.e. not pre-occupied by human EGF Receptor. No cross reaction was observed with sera spiked with the other therapeutic antibodies including Infliximab, Adalimumab, Etanercept, Rituximab, Tocilizumab, Trastuzumab, Aflibercept and Bevacizumab at concentrations up to 2 mg/mL. All produced mean OD450/620 nm values ranged from 0.009 to 0.027.

## Product Details

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Components: plate, standards, assay buffer, conjugate, TMB, HCl, wash buffer

Material not included: normal lab equipment for performing ELISA assays

## Target Details

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Target: Cetuximab Specific

Background: The drug Cetuximab (trade name Erbitux®) is a human-mouse chimeric immunoglobulin (IgG1 monoclonal antibody (mAb), selectively directed against the epidermal growth factor receptor (EGFR), also known as HER1 or ErbB1. Since its approval by Food and Drug Administration for cancer treatment in 2004, Cetuximab became widely used in the treatment of colorectal and head and neck cancers. Initial studies reported relationships both between Cetuximab cutaneous toxicity and therapeutic effect and between Cetuximab concentrations and cutaneous toxicity. These data provide indirect evidence for the potential interest of therapeutic drug monitoring of Cetuximab, based on the measurement of its serum concentrations in treated patients. Recently it also reported that there is a correlation between Cetuximab trough levels and antitumor response on Cetuximab monotherapy. 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

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Sample Volume: 20 µL

Assay Time: 1.5 h

Plate: Pre-coated

Protocol: This ELISA is based on Cetuximab-specific mouse monoclonal antibody (catcher Ab, clone IG-FB7D9). Diluted standards and samples are incubated in the microtiter plate coated with IG-FB7D9 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 Cetuximab. Following incubation, wells are washed and the bound enzymatic activity is detected by addition of chromogen-substrate. The colour developed is proportional to the amount of Cetuximab in the sample or standard. Results of samples can be determined by using the standard curve. Binding of Cetuximab to the solid phase, pre-coated with IG-FB7D9, is inhibited by recombinant human epidermal growth factor receptor (rh-EGFR) protein in a concentration dependent manner. Therefore, the Cetuximab ELISA kit (mAb-Based) measures

## Application Details

the free form of Cetuximab.

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

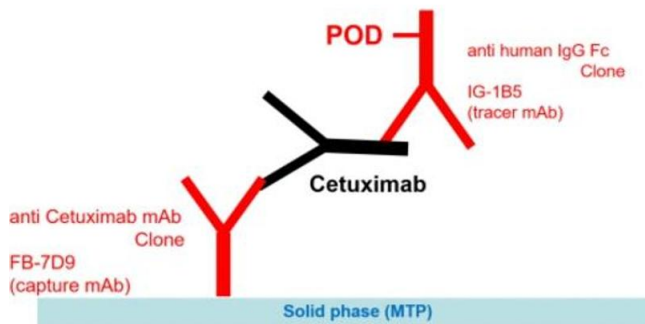


Image 1.

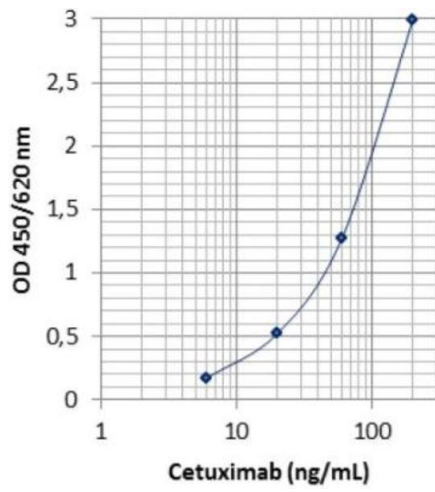


Image 2.