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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-dioxin [DD3] Bulk Size Ab03298-1.1-BT

Isotype and Format: Mouse IgG1, Kappa

Clone Number: DD3

Alternative Name(s) of Target: PCDD; DLCs; PCDF; TCDD; DD-3

UniProt Accession Number of Target Protein:

Published Application(s): EIA, ELISA

Published Species Reactivity: Species independent

Immunogen: The antibody was generated by immunizing BALB/c mice with 1-N-(adipamino)-2,3,7-triCDD-linked carrier-protein BSA.

Specificity: The antibody recognizes tetrachloro- and pentachloro-dibenzodioxins and -dibenzofurans. It falls to bind either non-chlorinated, mono-, hexa-, or octa-chlorinated dibenzodioxins, nor does it recognize non-chlorinated, octachloro- or 1,2,3,4,8,9-hexachlorodibenzofurans. Dioxins are a group of chemical compounds that are persistent organic pollutants (POPs) in the environment.

Application Notes: The specificity of the antibody for 2,3,7,8-TCDD was confirmed by ELISA analysis. In order to evaluate the ability of the antibody to recognize various kinds of polychlorinated dibenzodioxins and dibenzofurans, a competition ELISA was developed. The antibody was specific and it recognized only a limited number of dioxin and dibenzofuran isomers. The antibody is suitable for the development of rapid, inexpensive screening assays for monitoring the presence of dioxin in biological, soil and other environmental samples (Stanker et al., 1987; PMID: 3629609). Immunoaffinity columns were prepared using the antibody and employed for purification (Huwe et al., 2001; PMID: 11417873) or recovery (Shelver et al., 2002) of polychlorinated dibenzo-p-dioxins and furans from biological samples. The recombinant Fab version of the antibody was generated; it displayed competitive inhibition with 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) in an indirect ELISA (Lee et al.; 1998). A quartz crystal microbalance (QCM) biosensor was developed for the rapid detection of polychlorinated dibenzo-p-dioxins (PCDDs) using the antibody. The results show that 2,3,7,8-TCDD can be quantitatively detected in the concentration range 0.01–1.3 ng/ml and the sensitivity and selectivity of the QCM biosensor is comparable to EIA and ELISA methods (Zhou et al., 2001; PMID: 11205517). Further, a phosphorescent-labeled immunoassay for dioxins was developed using the antibody (Matveeva et al., 2001). A competitive inhibition EIA based on the antibody was developed in two different formats, a rapid tube test and a microplate test for detection from solid samples (Harrison et al., 1997; PMID: 9134667).

Antibody First Published in: Stanker et al. Monoclonal antibodies for dioxin: antibody characterization and assay development *Toxicology*. 1987 Sep;45(3):229-43. [PMID:3629609](#)

Note on publication: The paper describes the generation and characterization of a set of 5 anti-dioxin

monoclonal antibodies.

Product Form

Size: 1 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.