

Rabbit Anti-Deoxynivalenol Polyclonal Antibody

Rabbit, Polyclonal (DON)

Cat. No. DPAB4250

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: Rabbit polyclonal antibody to deoxynivalenol.

Immunogen: BSA-DON

Sensitivity: Purified antibody reacts with DON mycotoxin.

Host animal: Rabbit

Form: IgG purified

Cross reactions: 1 mg/ml

Application: Optimal dilutions should be determined by the end user.

PACKAGING

Appearance: Liquid

Constituents: PBS

Storage: Storage at -20°C. Avoid freeze-thaw cycles.

Warning: This is a laboratory reagent. It is not to be administered to human or animals nor be used as a drug.

REFERENCES

1. Gautam, P. and Dill-Macky, R. 2011. Type I host resistance and Trichothecene Accumulation in Fusarium-infected Wheat Heads. American Journal of Agricultural and Animal Sciences 6(2): 231-241.
2. Gautam, P. and Dill-Macky, R. 2012. Impact of moisture, host genetics and Fusarium graminearum isolates on Fusarium head blight development and trichothecene accumulation in spring wheat. Mycotoxin Research 28 (1) DOI: 10.1007/s12550-011-0115-6.
3. Beyer M, Klix MB, Klink H, Verreet J-A (2006): Quantifying the effects of previous crop, tillage, cultivar and triazole fungicides on the deoxynivalenol content of wheat grain-a review. Journal of Plant Diseases and Protection 113: 241-246.

ANTIGEN BACKGROUND

Introduction: Vomitoxin, also known as deoxynivalenol (DON), is a type B trichothecene, an epoxy-sesquiterpeneoid. This mycotoxin occurs predominantly in grains such as wheat, barley, oats, rye, and maize, and less often in rice, sorghum, and triticale. The occurrence of deoxynivalenol is associated primarily with Fusarium graminearum (Gibberella zeae) and F. culmorum, both of which are important plant pathogens which cause fusarium head blight in wheat and gibberella or fusarium ear blight in maize. A direct relationship between the incidence of fusarium head blight and contamination of wheat with deoxynivalenol has been established. The incidence of fusarium head blight is strongly associated with moisture at the time of flowering (anthesis), and the timing of rainfall, rather than the amount, is the most critical factor. However, increased amount of moisture towards harvest time has been associated with lower amount of vomitoxin in wheat grain due to leaching of toxins. Furthermore, deoxynivalenol contents are significantly affected by the susceptibility of cultivars towards Fusarium species, previous crop, tillage practices, and fungicide use.

Keywords: (3 α ,7 α)-3,7,15-trihydroxy-12,13-epoxytrichothec-9-en-8-one; Deoxynivalenol (DON); Vomitoxin; 4-deoxynivalenol; dehydronivalenol; desoxynivalenol; rdt toxin; Deoxynivalenol, Vomitoxin; 3 α ,7 α ,15-Trihydroxy-12,13-epoxytrichothec-9-en-8-one, Vomitoxin; 3 α ,7 α ,15-Trihydroxy-12,13-epoxytrichothec-9-en-8-one, DON, Vomitoxin; 3 α ,7 α ,15-Trihydroxy-12,13-epoxytrichothec-9-en-8-one, Deoxynivalenol solution, DON, Vomitoxin; 4-Deoxynivalenol in acetonitrile; 3 α ,7 α ,15-Trihydroxy-12,13-epoxytrichotheca-9-ene-8-one; deoxynivalenol standard; DON, Vomitoxin