

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Anti-Usutu virus envelop protein E [A9] Standard Size Ab03678-30.11

This is an scFv fragment with a His tag.

This is a reformatted chicken scFv antibody, based on the original chicken scFv format, created for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: scFv fragment (His), ScFv

Clone Number: A9

Alternative Name(s) of Target: USUV; USUV genome polyprotein; USUV envelope protein; genome

polyprotein; envelope protein E; Usutu virus; West Nile virus; WNV; Domain III (DIII); flavivirus

UniProt Accession Number of Target Protein: Q5WPU5; Q9Q6P4

Published Application(s): WB, ELISA

**Published Species Reactivity:** Usutu virus (USUV)

**Immunogen:** A DIII-immune phage display scFv library was generated by immunizing three chickens against group A and group I USUV DIII. The original antibody was isolated from this library by panning against Usutu virus A and Usutu virus B.

**Specificity:** This antibody binds an epitope within domain III of the envelope protein of Usutu virus (USUV). Usutu virus is a mosquito-borne flavivirus belonging to the Japanese encephalitis virus (JEV) serocomplex, which is an emerging zoonotic arbovirus of concern because of its pathogenicity to humans. This virus propagates via a zoonotic life cycle with birds as amplifying hosts and ornithophilic mosquitoes acting as vectors. USUV infections cause mild influenza-like symptoms, in sever cases invasion of the central nervous system in immunocompromised patients causing meningoencephalitis and meningitis.

**Application Notes:** This antibody can bind the E protein domain III antigens of USUV strains A, B, I and West Nile virus in an ELISA. Surface plasmon resonance was used for the determination of binding affinity of this scFv antibody. The scFv antibody binds USUS I and WNV domain III with a Kd of  $0.29-0.38\,\mu\text{M}$  and  $0.10\,\mu\text{M}$  respectively. This antibody can also detect USUV E protein DIII from groups A, B, and I as well as WNV 2741 E protein DIII in a western blot (PMID: 32829514).

**Antibody First Published in:** Schoenenwald et al. Development and characterization of specific anti-Usutu virus chicken-derived single chain variable fragment antibodies. Protein Sci. 2020 Nov;29(11):2175-2188. PMID:32829514

Note on publication: Describes the generation of chicken antibodies against Usutu virus.

#### **Product Form**

**Size:** 50 μg Purified antibody.

**Purification:** Purified by Immobilized Metal Affinity Chromatography

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. 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.