



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Anti-USutu virus envelop protein E [A9] Bulk Size Ab03678-30.11-BT

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 severe 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 USUV I and WNV domain III with a  $K_d$  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](https://pubmed.ncbi.nlm.nih.gov/32829514/)

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

## Product Form

**Size:** 500  $\mu\text{g}$  Purified antibody in bulk size.

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

**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.