

SAFETY DATA SHEET

Compliant with OSHA HCS 29 CFR 1910.1200 and WHMIS 2015

SECTION 1: Identification

- **Product Name:** VitroView™ LSAB IHC/DAB Kit (Goat IgG) (100 Tests)
- **Catalog / SKU Number:** VB-6021D
- **Manufacturer:** VitroVivo Biotech LLC, 405 E Gude Dr, Suite 214, Rockville, MD 20850, USA
- **Recommended Use:** Laboratory chemical for research use only (Immunohistochemistry). Not for human or animal therapeutic or diagnostic use.

SECTION 2: Hazard(s) Identification

The kit contains multiple liquid components. The overall hazard classification is primarily governed by the DAB Stock Solution (40×).

GHS Classification (Kit-wide / Most Severe Component):

- Germ Cell Mutagenicity – Category 2 (Suspected of causing genetic defects)
- Carcinogenicity – Category 1B or 2 (Suspected / May cause cancer)
- Skin Irritation – Category 2
- Eye Irritation – Category 2A

GHS Label Elements:

- **Signal Word:** DANGER
- **Hazard Pictograms:** [Health Hazard] [Exclamation Mark]
- **Hazard Statements:** H341: Suspected of causing genetic defects. H350: May cause cancer. H315: Causes skin irritation. H319: Causes serious eye irritation.
- **Precautionary Statements:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing/eye protection/face protection. IF EXPOSED OR CONCERNED: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. IF ON SKIN: Wash with plenty of water. Store locked up.

SECTION 3: Composition / Information on Ingredients

The kit is a multi-component configuration. Chemical individualities of hazardous elements are detailed below:

Component Name	Volume	Major Ingredients / Hazard Drivers	CAS Number	% (w/v or v/v)
RTU Normal Donkey Serum	10 mL	Donkey Serum (non-hazardous protein matrix);	26628-22-8	< 0.1%

		Sodium Azide (preservative)		
RTU Biotinylated Anti-Goat Secondary Antibody	10 mL	Ig fraction; Sodium Azide (preservative)	26628-22-8	< 0.1%
RTU Streptavidin-HRP	10 mL	Streptavidin-HRP conjugate; ProClin 300 (preservative, alternative to azide)	Various	< 0.1%
DAB Stock Solution (40×)	0.75 mL	3,3'-Diaminobenzidine tetrahydrohydrate	868272-85-9	1% – 5%
DAB Buffer	30 mL	Proprietary buffer salts; Hydrogen Peroxide (<0.1% active)	Mixture	—
RTU Hematoxylin Solution	10 mL	Hematoxylin; Aluminum Ammonium Sulfate; Acetic Acid	517-28-2 / 64-19-7	< 1% / < 2%

SECTION 4: First-Aid Measures

- **Inhalation:** Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **Skin Contact:** Wash off immediately with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention if irritation persists.
- **Eye Contact:** Flush eyes thoroughly with water for at least 15 minutes, holding eyelids open. Remove contact lenses if easy to do. Consult a physician immediately.
- **Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a physician.

SECTION 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
- **Specific Hazards:** Thermal decomposition can lead to the release of toxic and irritating gases (carbon oxides, nitrogen oxides, hydrogen chloride gas).
- **Protective Equipment:** Wear self-contained breathing apparatus (SCBA) and full protective gear for firefighting if necessary.

SECTION 6: Accidental Release Measures

- **Personal Precautions:** Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains or surface water.
- **Clean-up Methods:** Soak up with inert absorbent material (e.g., sand, silica gel, acid binder). Package in designated, closed disposal containers.

SECTION 7: Handling and Storage

- **Handling:** Avoid contact with skin, eyes, and clothing. Avoid inhalation of vapor or mist. Wash skin thoroughly after handling. Do not eat, drink, or smoke when handling.
- **Storage:** Keep container tightly closed in a dry, cool, and well-ventilated place. Recommended storage temperature: 2–8°C. Do not freeze. Store locked up and away from incompatible materials.

SECTION 8: Exposure Controls / Personal Protection

- **Exposure Limits:** Contains no substances with occupational exposure limit values at current concentrations, though Sodium Azide has a ceiling limit of 0.29 mg/m³ (ACGIH TLV).
- **Engineering Controls:** Handle in accordance with good industrial hygiene and safety practices. Ensure eyewash stations and safety showers are close to the workstation.
- **Personal Protective Equipment (PPE):** Eye/Face Protection: Tightly fitting safety goggles. Skin Protection: Chemical-resistant gloves (nitrile or latex). Body Protection: Laboratory coat. Respiratory Protection: Not required under normal use; use air-purifying respirators if risk assessment warrants.

SECTION 9: Physical and Chemical Properties

- **Appearance:** RTU Serum/Antibody/Streptavidin/Buffer: Clear, colorless to pale-yellow liquids. DAB Stock (40×): Clear, brown to purple-tinted liquid. Hematoxylin: Dark purple/red liquid.
- **Odor:** Odorless to slight pungent (Hematoxylin contains trace acetic acid).
- **pH / Solubility:** Component dependent (Buffered between pH 4.0 and 7.6) / Fully miscible in water.

SECTION 10: Stability and Reactivity

- **Reactivity / Chemical Stability:** Stable under recommended storage conditions.
- **Possibility of Hazardous Reactions:** Sodium azide can react with heavy metals (lead, copper) to form explosive azides. Dilute quantities in this kit minimize this risk.
- **Incompatible Materials / Decomposition:** Strong oxidizing agents, strong acids, heavy metals / Carbon oxides, nitrogen oxides.

SECTION 11: Toxicological Information

- **Acute Toxicity:** Quantitative data not available for the mixture.
- **DAB Stock Solution Effects:** 3,3'-Diaminobenzidine is toxic if swallowed or absorbed through the skin. It is recognized as a mutagen and potential carcinogen.
- **Carcinogenicity:** 3,3'-Diaminobenzidine is classified as a suspected human carcinogen (IARC / NTP / OSHA).

SECTION 12: Ecological Information

No specific ecotoxicity data available for the kit. Avoid discharge into the environment.

SECTION 13: Disposal Considerations

Dispose of in accordance with local, state, and federal environmental regulations. DAB is a hazardous chemical waste. Do not dispose of via wastewater systems or household trash. Contaminated packaging must be treated as hazardous product waste.

SECTION 14: Transport Information

DOT (US) / IMDG / IATA: Not regulated as dangerous goods for transport. (Quantities are below the excepted/limited quantity thresholds for dangerous components).

SECTION 15: Regulatory Information

- **SARA 302 / 313:** This material does not contain any chemical components that exceed the threshold reporting levels established by SARA Title III, Section 302 or 313.
- **California Proposition 65:** This product contains a chemical known to the State of California to cause cancer (3,3'-Diaminobenzidine).

SECTION 16: Other Information

- **Preparation Date:** September 19, 2026
- **Disclaimer:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release.