



Ver.260801

DAB Colour Development Kit (20x)

DA1010

FOR RESEARCH USE ONLY, DO NOT USE IT IN CLINICAL DIAGNOSIS

Product Description

DAB is a chromogenic substrate for peroxidase (POD). DAB chromogenic solution is mainly applied to the immunoperoxidase method, and compatible with immunoblotting or immunohistochemical reactions labeled with horseradish peroxidase (HRP). Peroxidase catalyzes the substrate to undergo a chemical reaction, generating brown precipitates at the reactive sites. Clear bands can be visualized directly on the membrane in immunoblot assays. For immunohistochemical specimens, the chromogenic reaction is generally carried out at room temperature for 5-20 minutes, after which the staining result is checked under a microscope. Once adequate colour development is achieved, the specimens should be immediately dehydrated and mounted. The final reaction product can be directly observed under a light microscope. If treated with osmium tetroxide (OsO₄), the electron density of the precipitates will be enhanced, enabling observation under an electron microscope.

Product components

Component	3mL	10mL
Solution A	3mL	10mL
Solution B	3mL	10mL

Protocol

1. For tissue sections or Western blot membranes, after incubation with horseradish peroxidase (HRP)-conjugated antibodies or other probes, wash the samples with appropriate washing buffer 3-5 times, 3-5 minutes per wash.
2. Pipette 900µL of 1x PBS, add 50µL of Solution A and 50µL of Solution B, then mix thoroughly to prepare DAB working solution. Scale up volumes proportionally if a larger amount of working solution is required. This solution must be freshly prepared, protected from light after mixing, and used within 1 hour. Discard any unused solution once expired.
3. Add an adequate volume of DAB working solution to cover the tissue section or blot membrane completely.
4. Incubate at room temperature in the dark for 3-10 minutes (or longer if needed), shielded from light, until the desired staining intensity is reached.
5. Remove the DAB working solution, then rinse the samples 2-3 times with distilled water to terminate the chromogenic reaction.
6. For tissue or cell sections, counterstaining with other dyes can be performed after stopping the colour reaction for blot membranes, air-dry at room temperature and store away from light once staining is finished

Note

1. DAB stock solutions shall be stored hermetically under low temperature. If crystal precipitates form, ensure all crystals are fully dissolved prior to use,
2. The chromogenic working solution must be freshly prepared. Freshly made working solution should be colourless or light brown; discard and do not use if it turns dark.

3. Do not substitute double-distilled water for 1x PBS when preparing the chromogenic working solution.
4. Strictly control the staining duration and adjust the time according to sample conditions to prevent over-staining. The colour signal on solid-phase membranes will fade within several hours and cannot be preserved permanently.
5. DAB is a suspected carcinogen. Mandatory protective measures must be taken during handling. Wear gloves to avoid skin contact, thoroughly rinse exposed skin immediately after contact. All labware contaminated with DAB should be soaked in cleaning solution for 24 hours before reuse.
7. The products are all for scientific research use only. Do not use it for medical, clinical diagnosis or treatment, food and cosmetics, etc. Do not store them in ordinary residential areas.
8. For your safety and health, please wear laboratory clothes, disposable gloves and masks to operate.