

DATA SHEET

AEC Substrate Pack

For Use with Peroxidase Detection Methods & BioGenex Automated Staining Systems

Doc. No. 932-HK092-F, Rev. No. E
Date of Release: 17-Feb-2014

REAGENTS SUPPLIED (Store at 2-8°C)

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| AEC Substrate Pack: (HK092-5K) | 1 x 3 ml (HK121-5K) of 3-amino-9-ethylcarbazole (AEC) chromogen in N,N-dimethyl-formamide. Avoid contact with this solution. |
| One Step AEC Solution (HK139-06KE): | 11 x 2.5 ml (HK170-5K) of hydrogen peroxide in acetate buffer. |
| One Step AEC Solution (HK139-50KE): | 1 x 6 ml of 3-amino-9-ethylcarbazole (AEC) chromogen in N,N-dimethyl-formamide. |
| | 1 x 50 ml of 3-amino-9-ethylcarbazole (AEC) chromogen in N,N-dimethyl-formamide. |

Pack components are also available separately:

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| AEC Chromogen (HK121-5K): | 1 x 3 ml of 3-amino-9-ethylcarbazole (AEC) chromogen in N,N-dimethyl-formamide. Avoid contact with this solution. |
| AEC Substrate Buffer (HK170-5K): | 1 x 2.5 ml of 0.08% hydrogen peroxide in acetate buffer. |
| AEC Substrate Buffer (HK170-7K): | 1 x 17.5 ml of 0.08% hydrogen peroxide in acetate buffer. |
| AEC Substrate Buffer (HK170-10K): | 1 x 10.0 ml of 0.08% hydrogen peroxide in acetate buffer. |

PREPARATION AND USE

1. Add 1 drop of AEC Chromogen to each 2.5 ml of AEC Substrate Buffer. Mix well. Each 2.5 ml of working solution is sufficient to stain up to 25 slides.
2. For BioGenex Automated Staining Systems: preprogram the instrument to add the appropriate volume of working solution to cover the specimen according to tissue size or autostaining slide parameters.
3. For use in the manual procedure: Add enough working solution (2-5 drops) to entirely cover the tissue section.
4. For BioGenex Automated Staining Systems, an incubation time has been offered with the factory protocol for each BioGenex antibody suitable for automation. When using the Open Mode (User-Defined Protocol) on the instruments, an appropriate incubation time needs to be determined by the user in a preliminary test by using the desired antibody and both known positive and known negative control tissues. It can be determined under the microscope when specific staining with desired intensity is developed on the known positive control tissue, while no non-specific background staining is observed on both control tissues. The same method can be used to determine the optimal incubation time for the manual procedure. The expected incubation time is 2-10 minutes. In most cases, color development will be completed in 5 minutes.
5. Counterstain with an aqueous counterstain (eg. Mayer's Hematoxylin) and mount with an aqueous-based mounting medium such as BioGenex Aqueous Mounting Medium (HK099) or SuperMount® mounting medium (HK079).

The working solution is stable for up to 5 hours when kept at room temperature (20-26°C).

NOTES

1. Since AEC is soluble in organic solvents, do not use alcohol-containing solutions for dehydration or counterstaining when using AEC as the chromogen.

2. CAUTION: AEC is a suspected carcinogen. Avoid contact with skin. Use of gloves is recommended.
3. DISPOSAL: Excess reagents should be discarded properly. Observe all local, state, and federal regulations for AEC disposal.
4. N,N-Dimethylformamide (DMF), used as a solvent for AEC, is harmful if inhaled or ingested. Avoid inhalation, ingestion or contact with skin. DMF is combustible and should be used away from open flame. It has also been classified as a teratogen and pregnant workers should therefore avoid exposure.