

1. Effective Components

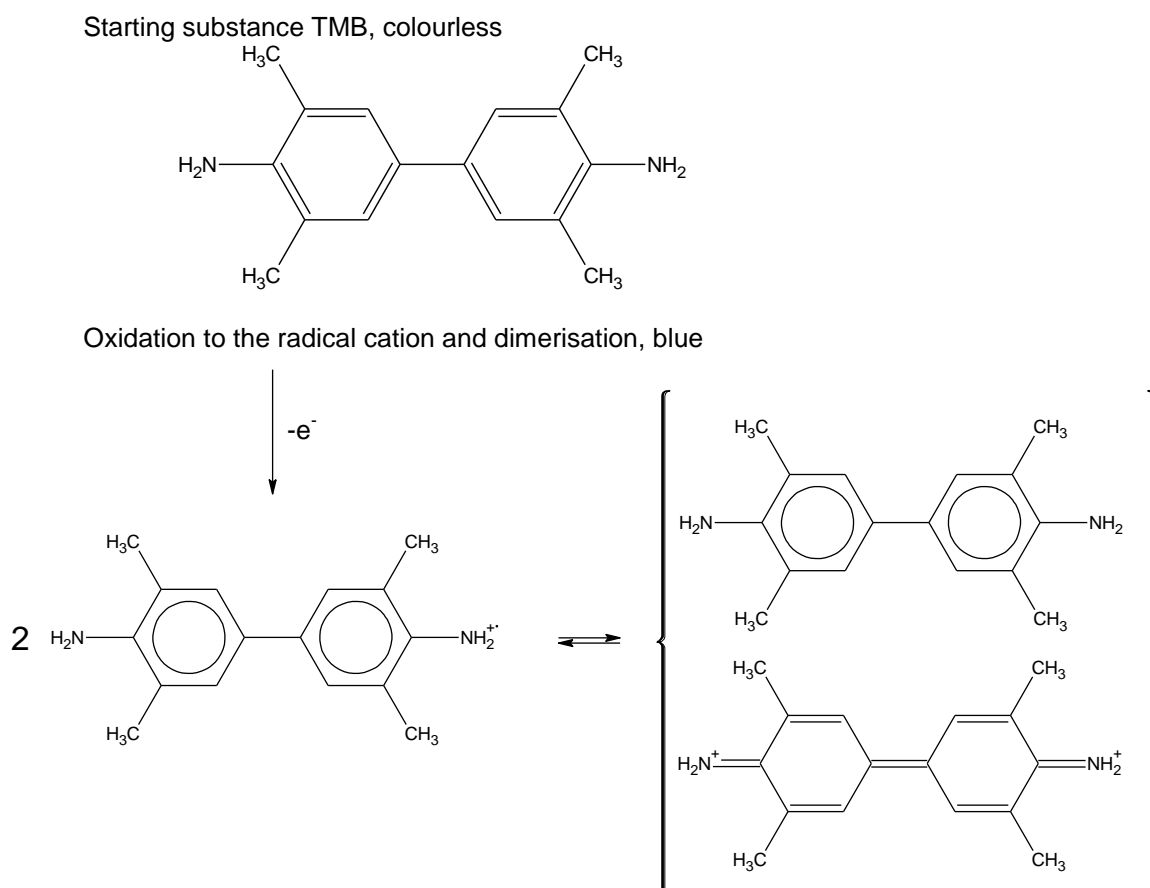
A citrate buffer system (pH 5.0) contains the following effective components

- Hydrogen peroxide (<3.0 mM) and
- 3,3',5,5'-Tetramethylbenzidine (TMB, 1.2 mM) and
- precipitating reagent (5 g/l)

The concentrations are below hazardous levels (see safety data sheet).

2. Principle of Function

Peroxidase catalyses the decomposition of hydrogen peroxide, taking electrons from TMB (oxidation). By oxidation TMB forms a radical cation that stabilizes by dimerisation and shows the typical blue colour.



These blue cation is stabilized by forming an insoluble complex with the precipitating reagent. So at positions with activity of horseradish peroxidase a blue to violet precipitate will appear.

3. Instruction for Storage, Transport and Bottling

SeramunBlau®prec has to be stored at 2-8°C protected from light. Under these conditions a shelf life of 36 months is given for the unopened bottle.

The solution will still work beyond the expiry date, but a lower sensitivity has to be taken into account.

Contaminated or leaked out substrate solution from damaged bottles should not be used anymore and has to be destroyed.

It is possible to transport the solution at room temperature, but temperatures exceeding 30 °C have to be avoided. The transport should take less than one week.

For bottling consider the following instructions:

- Work in a dust free and darkened room.
- Pay attention that the solution has no contact with metal parts (catalysis) of your instruments. Closed systems of silicon tubes are favoured.
- Clean all instruments and vessels very carefully.
- Never touch parts of the instruments that are in contact with the solution with the naked hand. Wear powder free gloves.
- Close the bottles immediately to minimize the influence of light and dust.
- Use bottles that are not permeable to light, made from HDPE or PP.

4. General Instructions for the Use in Blotting Systems

Only qualified laboratory staff, who are familiar with the basics of immunological methods are allowed to use this solution.

The substrate solution SeramunBlau[®]prec is intended for the use in blotting systems with visual interpretation. Under defined conditions a densitometric measurement is possible.

Depending from the system it is sufficient to wash the test strips after incubation with conjugate prior to transfer into the substrate solution. The strips are developed by movement on an orbital shaker until a distinct colour appears. The most commercial membranes allow to be washed and dried and the dried strips may be stored for documentary purposes. (Pay attention: some glues destroy the coloured precipitate)

If there are any special problems, e.g. the use in different detection systems, we endeavour to formulate an individual substrate solution in collaboration with our customers.

Please note our offers for the other precipitating substrate solution for horseradish peroxidase SeramunBlau[®]spot for solid surfaces and the BCIP/NBT containing substrate solution for the use with alkaline phosphatase.