

# TMB ELISA Substrate (Fast Kinetic Rate) **ab171524**

[2 References](#) [3 Images](#)

## Overview

<b>Product name</b>	TMB ELISA Substrate (Fast Kinetic Rate)
<b>Tested applications</b>	<b>Suitable for:</b> ELISA <b>Unsuitable for:</b> IHC-Fr or IHC-P
<b>General notes</b>	<p>Abcam's TMB ELISA Substrate (Fast Kinetic Rate) detects horseradish peroxidase (HRP) activity and contains 3,3',5,5'-tetramethylbenzidine in a mildly acidic buffer. The substrate is supplied as a ready to use solution. Unreacted substrate should be colorless or very light yellow in appearance. When this substrate system is reacted with peroxidase, a soluble blue reaction product is obtained. The reaction can be stopped using appropriate stop solution, producing a soluble yellow or soluble blue reaction product, depending upon the stop reagent used, which is stable for at least 1 hour. ab171524 is not recommended for membrane or immunohistochemical applications that require a precipitating reaction product.</p> <p><b>Product Use:</b></p> <p>ab171524 is supplied as a ready to use solution. The product should be allowed to equilibrate to room temperature (25°C) prior to use. For microwell applications, 100 µL of substrate solution is added to each well. A soluble blue reaction product develops which can be read at 370 nm or in a range of 620 nm to 650 nm. For best results, sample absorbance values should be monitored and read before absorbance values exceed 2.0 OD units. In endpoint assays, the substrate reaction can be stopped using equal volumes of 1 N HCl, 0.6 N sulfuric acid, or one of the stop solutions (<a href="#">ab171529</a> and <a href="#">ab171531</a>). Addition of acid turns the blue color to yellow and stops the enzymatic reaction. In the case of the 650 nm Stop Solutions for TMB Substrate (<a href="#">ab171531</a>), the blue color does not change. Since stopping the reaction increases sample absorbance values approximately three fold, unless using the 650 nm Stop Solutions for TMB Substrate (<a href="#">ab171531</a>), sample OD values should be monitored and substrate reaction stopped when values reach approximately 0.7 OD units. After stopping with the 450 nm Stop Solutions for TMB Substrate (<a href="#">ab171529</a>), a soluble yellow product develops which is read in the 450 nm range. Stopping with the 650 nm Stop Solutions for TMB Substrate (<a href="#">ab171531</a>) produces a soluble blue product which is read in the 650 nm range. Dilution of the substrate is not recommended. To reduce the intensity of a reaction, it is recommended that the antibodies or conjugates be diluted.</p> <p><b>Storage Instructions:</b></p> <p>Product should be stored at 2-8°C. Exposure to direct sunlight and other UV sources should be avoided due to the light sensitive nature of the TMB molecule.</p>

## Properties

Form	Liquid
Storage instructions	Store at +4°C short term (1-2 weeks). Store at +4°C. Please see notes section.
Storage buffer	<p>pH: 3.35</p> <p>Constituents: 0.05% 3,3',5,5'-Tetramethylbenzidine, 79% Water, 0.1% Hydrogen peroxide</p> <p>pH range is between 3.35 - 3.75</p>

Applications

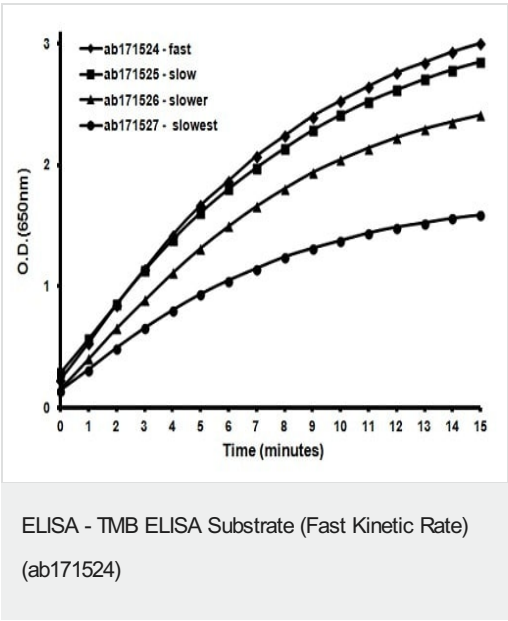
**The Abpromise guarantee** Our Abpromise guarantee covers the use of ab171524 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

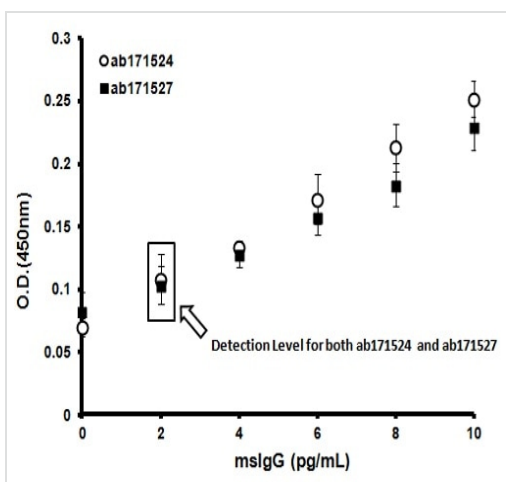
Application	Abreviews	Notes
ELISA		1/1. 100 µL of substrate solution is added to each well.

**Application notes** Is unsuitable for IHC-Fr or IHC-P.

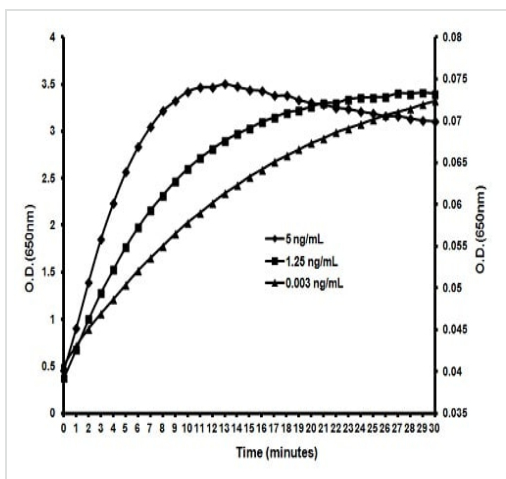
Images



Comparison of the kinetic curves of several TMB substrates at 500 pg/mL mslgG monitored over time at 650 nm.



ELISA - TMB ELISA Substrate (Fast Kinetic Rate)  
(ab171524)



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