Specification

Fast Green FCF (C.I. 42053) A1401

Synonym	Food Green 3
Formula	$C_{37}H_{34}N_2Na_2O_{10}S_3$
M	808.86 g/mol
CAS-No.:	2353-45-9
HS-No.:	32041900
EC-No.:	219-091-5
Storage:	RT
LGK:	10 - 13
R:	68
S:	36/37
	harmful
WGK:	3*
Specification	
$\lambda_{max.}$ (50 %, EtOH)	622 - 626 nm
E 1 %/1 cm, $\lambda_{max.}$	1360 - 1610
Loss on drying	max. 10 %

Literature

(1) Gorovsky, M.A. *et al.* (1970) *Anal. Biochem.* **35**, 359-370 Simple method for quantitive densitometry of polyacrylamide gels using Fast green.
(2) Bertolini, M.J. *et al.* (1974) *Anal. Biochem.* **71**, 6-13 Staining and destaining polyacrylamide gels: A comparison of Coomassie® blue and Fast green protein dyes.
(3) Wilson, C.M. (1979) *Anal. Biochem.* **96**, 263-278 Studies and critique of Amido black 10 B, Coomassie® blue R and Fast green FCF as stains for proteins after polyacrylamide gel electrophoresis.
(4) Allen, R.E. *et al.* (1980) *Anal. Biochem.* **104**, 494-498 Staining of proteins in IEF gels with Fast Green.

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Comment

The staining with Fast Green differs from author to author, like those for Coomassie® brilliant blue. Here we just present three examples:
I. (Ref. 1) Staining with 1 % (w/v) Fast Green in 7 % acetic acid for 2 hours at +4°C or room temperature.
Destaining in 7 % acetic acid with several changes of the acid for more than 48 - 72 hours.
II. (Ref. 2) Staining with 0.25 % (w/v) Fast Green in 10 % acetic acid for 2.5 - 3 hours at room temperature.
Destaining in 10 % acetic acid or 10 % acetic acid / 30 % ethanol for 18 hours at room temperature and 18 hours at 37°C or 3 hours at 60°C and 15 hours at room temperature.
III. (Ref. 4) Staining in 0.25 % (w/v) Fast Green in 10 % acetic acid (2x filtered) for 5 minutes
Destaining in 10 % acetic acid and 30 % methanol between 24 - 72 hours. (Note: Alcohol leads to shrinking of polyacrylamide gels).