

Detection of *Curtobacterium flaccumfaciens* pv. *flaccumfaciens*

Curtobacterium flaccumfaciens pv. *flaccumfaciens* is the causal agent of bacterial wilt disease of *Phaseolus* spp., but can also infect other members of the Fabaceae family like soy or pea. It was first identified on *Phaseolus vulgaris* in the United States in the 1920s and is listed as a quarantine pest in numerous countries.

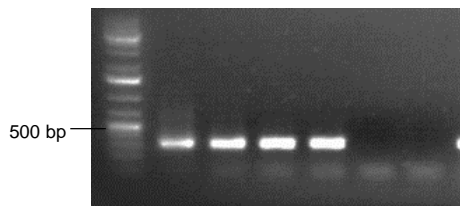


- Family:** *Microbacteriaceae - Curtobacterium*
Distribution: United States, Canada, Brazil, Colombia, Venezuela, Russia, Iran, Turkey, Tunisia, Zambia, Australia, Mauritius
Host range: *C. arietinum*, *G. max*, *L. culinaris*, *P. vulgaris*, *P. sativum*, *V. faba*, *V. unguiculata*
Transmission: Seed-transmitted
Symptoms: leaf and petiole wilting, chlorosis and necrosis of the leaf

Further Literature:

- (1) Tegli, S. et al. (2002). *PCR-based assay for the detection of Curtobacterium flaccumfaciens* pv. *flaccumfaciens* in bean seeds. *Letters in Applied Microbiology*, 35(4), 331-337.
- (2) Osdaghi, E. et al. (2020). *Bacterial wilt of dry beans caused by Curtobacterium flaccumfaciens* pv. *flaccumfaciens*: A new threat from an old enemy. *Molecular Plant Pathology*, 21: 605– 621.
- (3) EPPO (2011) PM 7/102 (1) *Curtobacterium flaccumfaciens* pv. *flaccumfaciens*. EPPO Bulletin 41, 320–328.

Detection of *C. flaccumfaciens* pv. *flaccumfaciens* by complete DNA PCR reaction



Size of expected fragment: 306 bp

High specificity and sensitivity!

Non-targets tested and not detected:

C. flacc. Pv. *Betae*, *C.m.i.*, *C.m.s*, *C.m.m.*, *P.syr.* Pv *phaseolicola*, *P.syr.pv.* *Syringae*, *Ps.syr.* Pv. *Tomato*, *X.a.pv.* *Phaseolie* var. *fuscans*

08198C/100	<i>C. f. pv. flaccumfaciens</i> PCR complete DNA PCR reaction kit	100 reactions
08198PC	Positive PCR Control <i>C. f. flaccumfaciens</i> (DNA-based)	1 vial (10 reactions)
08198NC	Negative Control <i>C. f. flaccumfaciens</i> (DNA-based)	1 vial (10 reactions)

Detection of *C. flaccumfaciens* pv. *flaccumfaciens* by Immuno Fluorescence

07398C/01	Antiserum <i>C. f. pv. flaccumfaciens</i> ca. 5 000 tests	0.1 ml
07398C/02	Antiserum <i>C. f. pv. flaccumfaciens</i> ca. 10 000 tests	0.2 ml
07398C/10	Antiserum <i>C. f. pv. flaccumfaciens</i> ca. 50 000 tests	1.0 ml
07308PC	IF Method Control GAR unspecific	1 vial
07398/10000	Immunofluorescence Kit <i>C. f. pv. flaccumfaciens</i> for 10000 tests	10 000 tests