

Supplementary Materials

Table S1. Detailed information on fungal isolates that cause postharvest apple diseases identified by sequencing the partial β -tubulin gene.

Isolate code	Species	Sampling year	Origin	GPS coordinates	Accession number	Similarity percent-age
MY2	<i>Neofabraea vagabunda</i>	2022	Meknes	N 33° 59' 36,8088" W 5° 12' 2,4948"	OR753458	99,72% (OL740379)
Aby4	<i>Penicillium expansum</i>	2021	Midelt	N 32° 45' 2,2896" W 5° 1' 45,1776"	OL802926	100% (MZ393463)

Table S2. Specific information on the β -tubulin and AMT4-EMR markers used in this investigation. Detailed PCR conditions can be found in the bibliographic references listed.

Partial gene name	Code of Primers	Sequence	Annealing T°	Reference
β -tubulin	Bt2a	GGTAACCAAATCGGTGCTGCTTTC	58	[79]
	Bt2b	ACCCTCAGTGTAGTGACCCTTGGC		
AMT4-EMR	AMT4-EMR-F	CTCGACGACGGTTTGGAGAA	66	[80]
	AMT4-EMR-R	TTCCTTCGCATCAATGCCCT		