

Figure S1. UPLC-ESI-HRMS/MS mass spectra of *Aframomum citratum* (C.Pereira) K.Schum **(A)**, *Dichrostachys glomerata* (Forssk.) Chiov. **(B)**, *Tetrapleura tetraptera* (Schum. and Thonn.) Taub **(C)** and *Xylopia parviflora* Spruce **(D)** extracts.

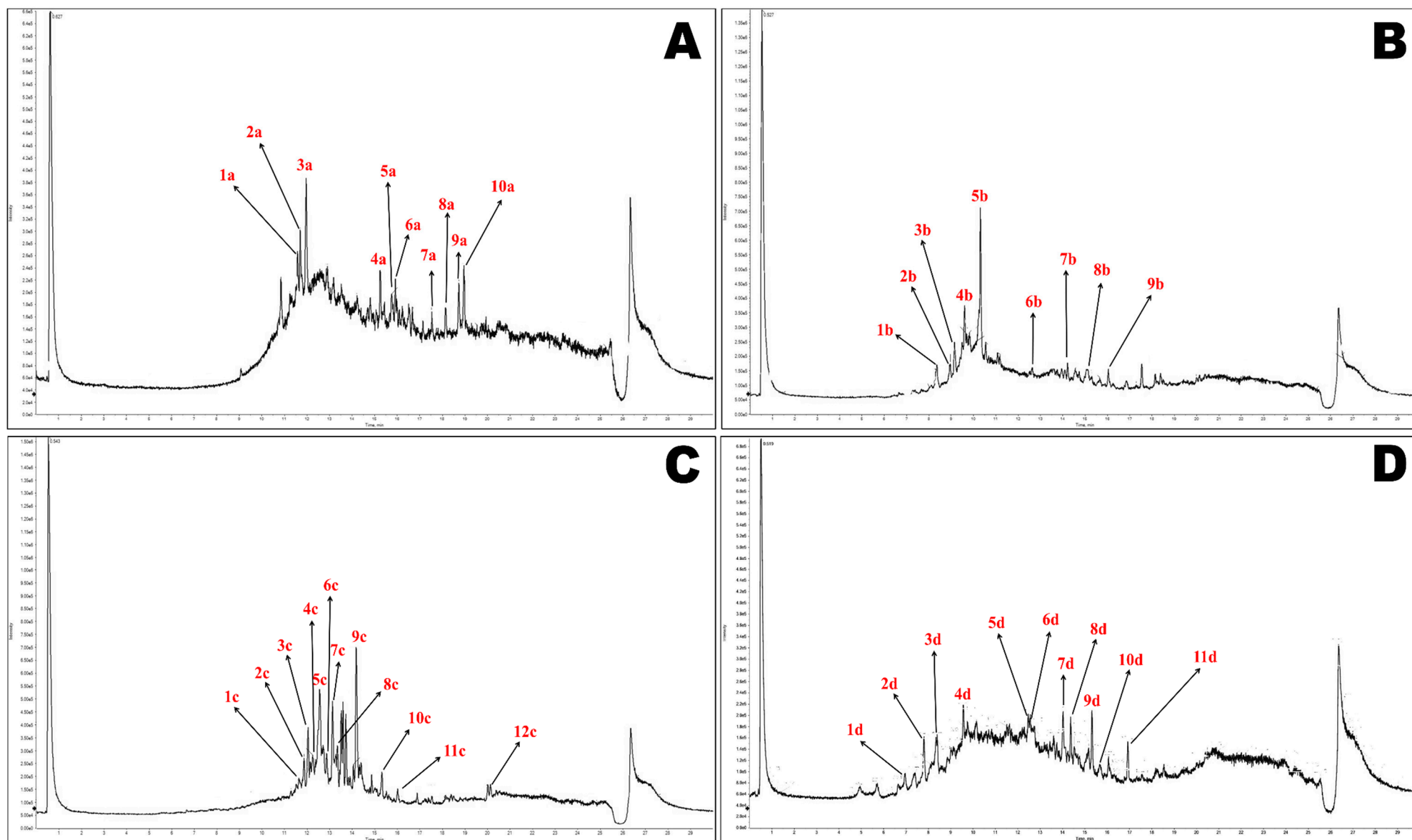


Figure S2. FTIR spectra of *Aframomum citratum* (C.Pereira) K.Schum **(A)**, *Dichrostachys glomerata* (Forssk.) Chiov. **(B)**, *Tetrapleura tetraptera* (Schum. and Thonn.) Taub **(C)** and *Xylopia parviflora* Spruce **(D)** extracts.

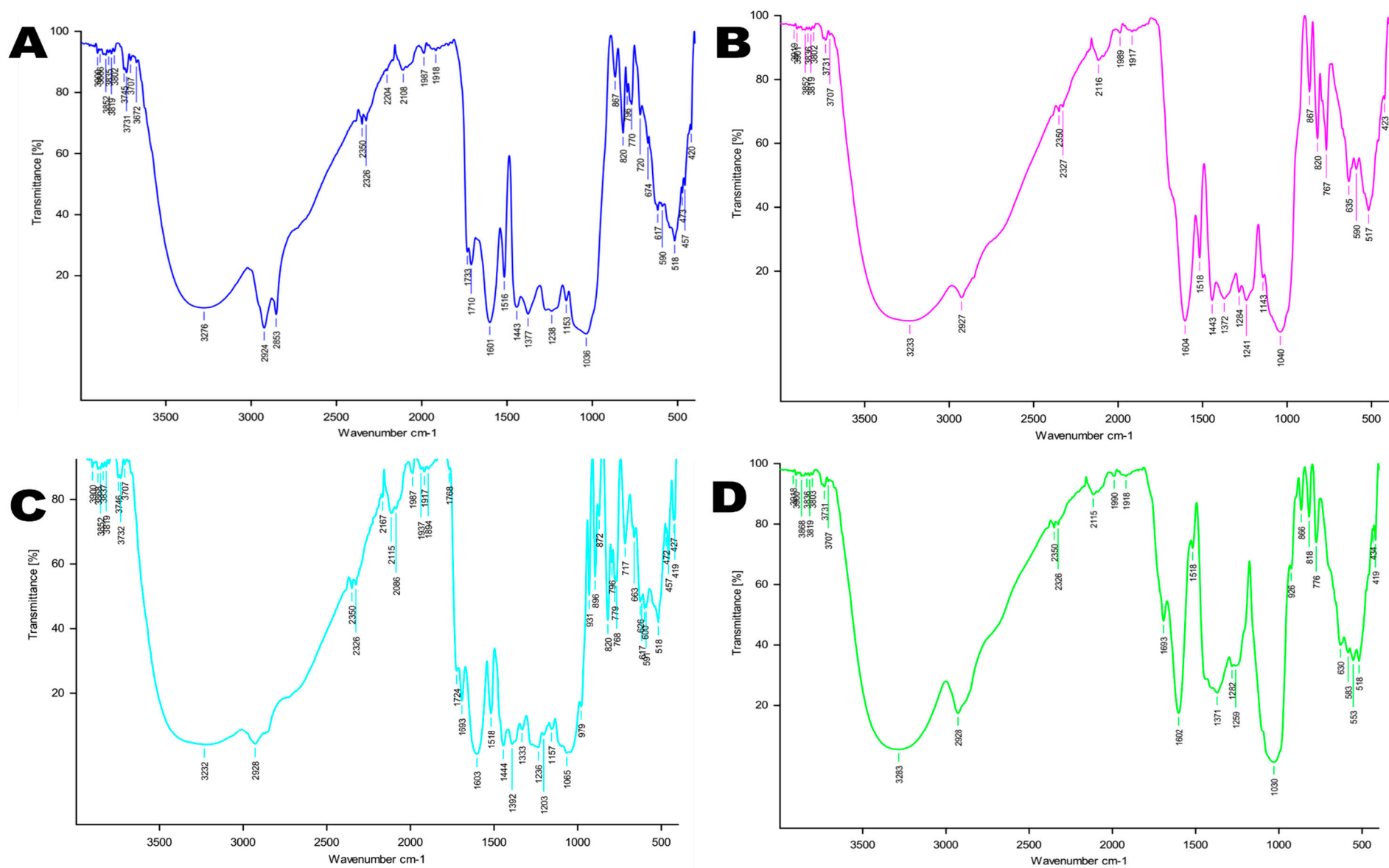


Table S1. Correlation coefficient (R) among the assays (antioxidant assays with phenolic compounds)

Variables	TPC	TFC	FC	ABTS	DPPH	Protocatecheuic acid	Epicatechin	Catechin	Caffeic acid	p-Coumaric acid	Rosmarinic acid	Kaempferol
TPC	1											
TFC	0.99*	1										
FC	0.30	0.41	1									
ABTS	0.97*	0.99*	-0.54	1								
DPPH	0.97*	0.96*	-0.44	0.97*	1							
Protocatecheuic acid	-0.66	-0.68	0.06	0.58	0.46	1						
Epicatechin	0.52	0.41	-0.59	-0.29	-0.45	-0.33	1					
Catechin	0.52	0.41	-0.59	-0.29	-0.45	-0.33	1*	1				
Caffeic acid	0.52	0.41	-0.59	-0.29	-0.45	-0.33	1*	1*	1			
p-Coumaric acid	0.39	0.48	0.99*	-0.61	-0.54	0.05	-0.49	-0.49	-0.49	1		
Rosmarinic acid	0.51	0.60	0.97*	-0.71	-0.62	-0.13	-0.42	-0.42	-0.42	0.98*	1	
Kaempferol	-0.75	-0.76	0.01	0.67	0.57	0.99*	-0.39	-0.39	-0.39	-0.01	-0.18	1

(*): Significant ($p < 0.05$) between variables. **ABTS**: 2,2'-azinobis-(3-ethylbenzothiazoline-6-sulfonic acid); **DPPH**: 1,1-Diphenyl-2-picryl-hydrazyl; **FC**: Flavonol content; **TPC**: Total phenol content; **TFC**: Total flavonoid content.

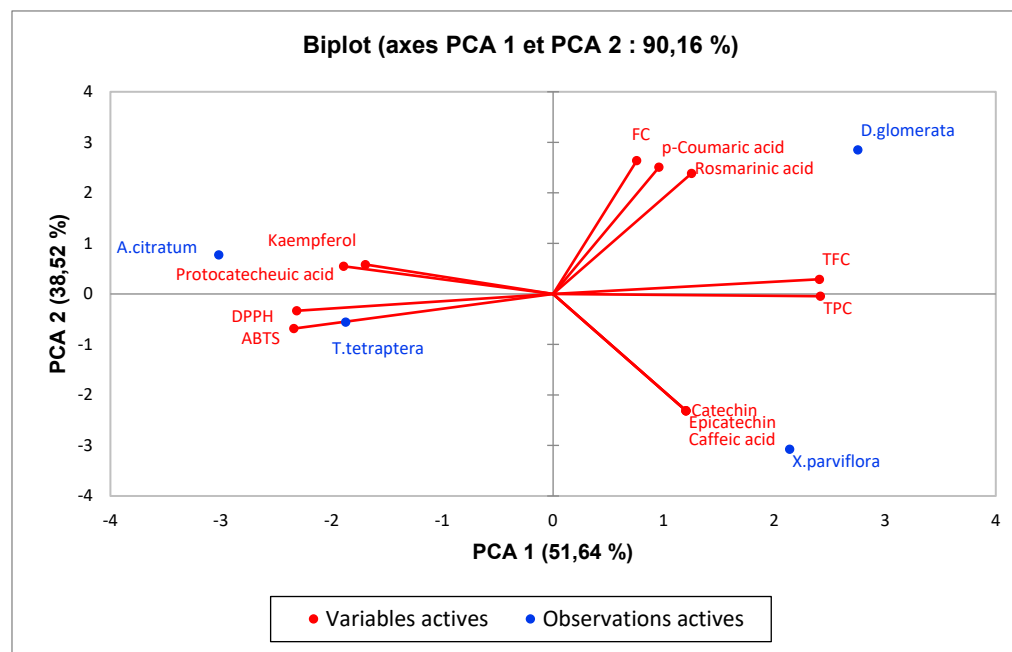
Figure S3. Principal component analysis (PCA) of the antioxidant assays, phenolic acids and flavonoids determined by HPLC-PDA

Figure S4. Microscopy (inverted phase contrast microscopy; 10X magnification) representation of human normal gastric (GES-1) cells **(A)** gastric adenocarcinoma (AGS) **(B)** epithelial cells.

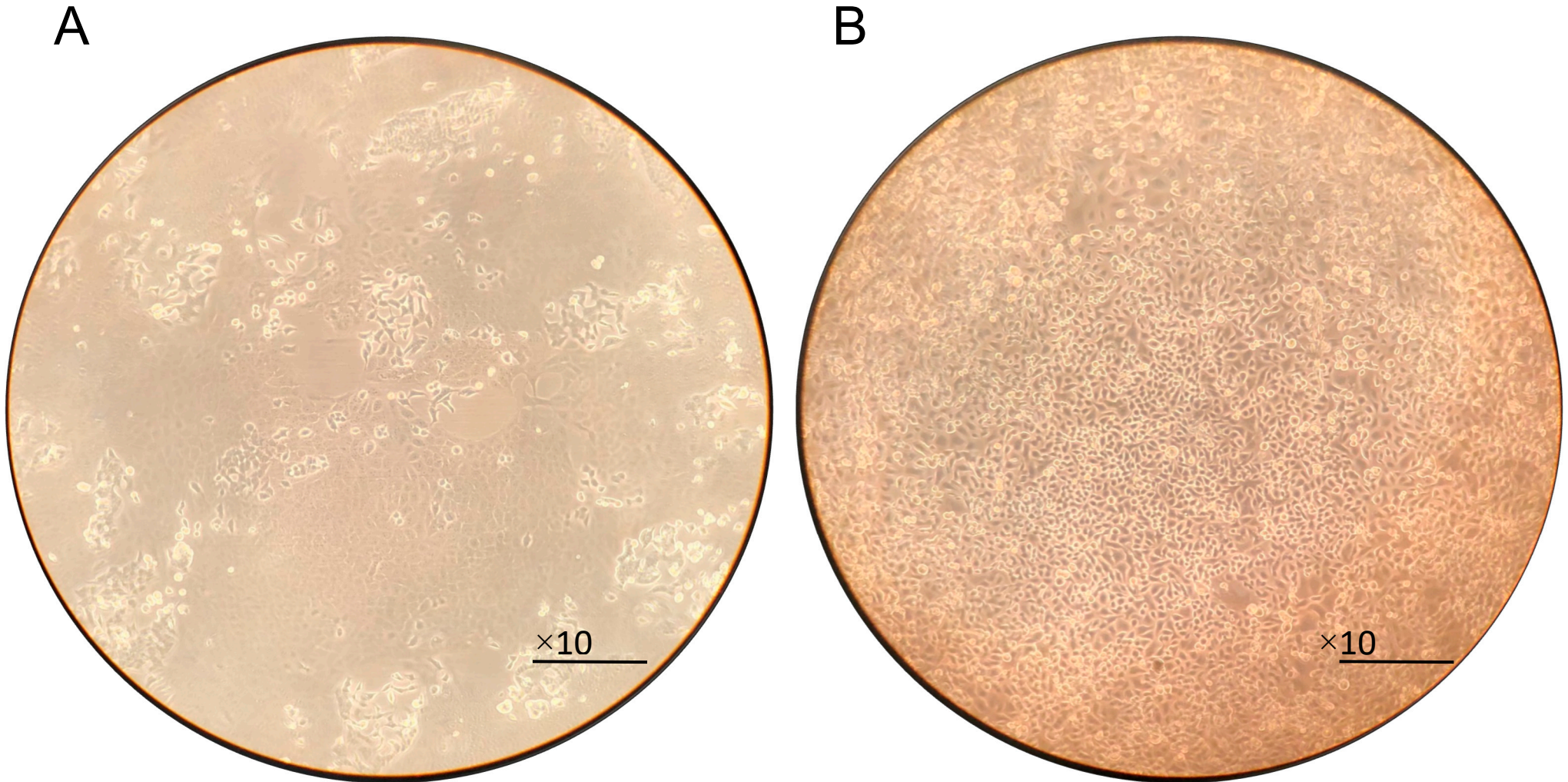
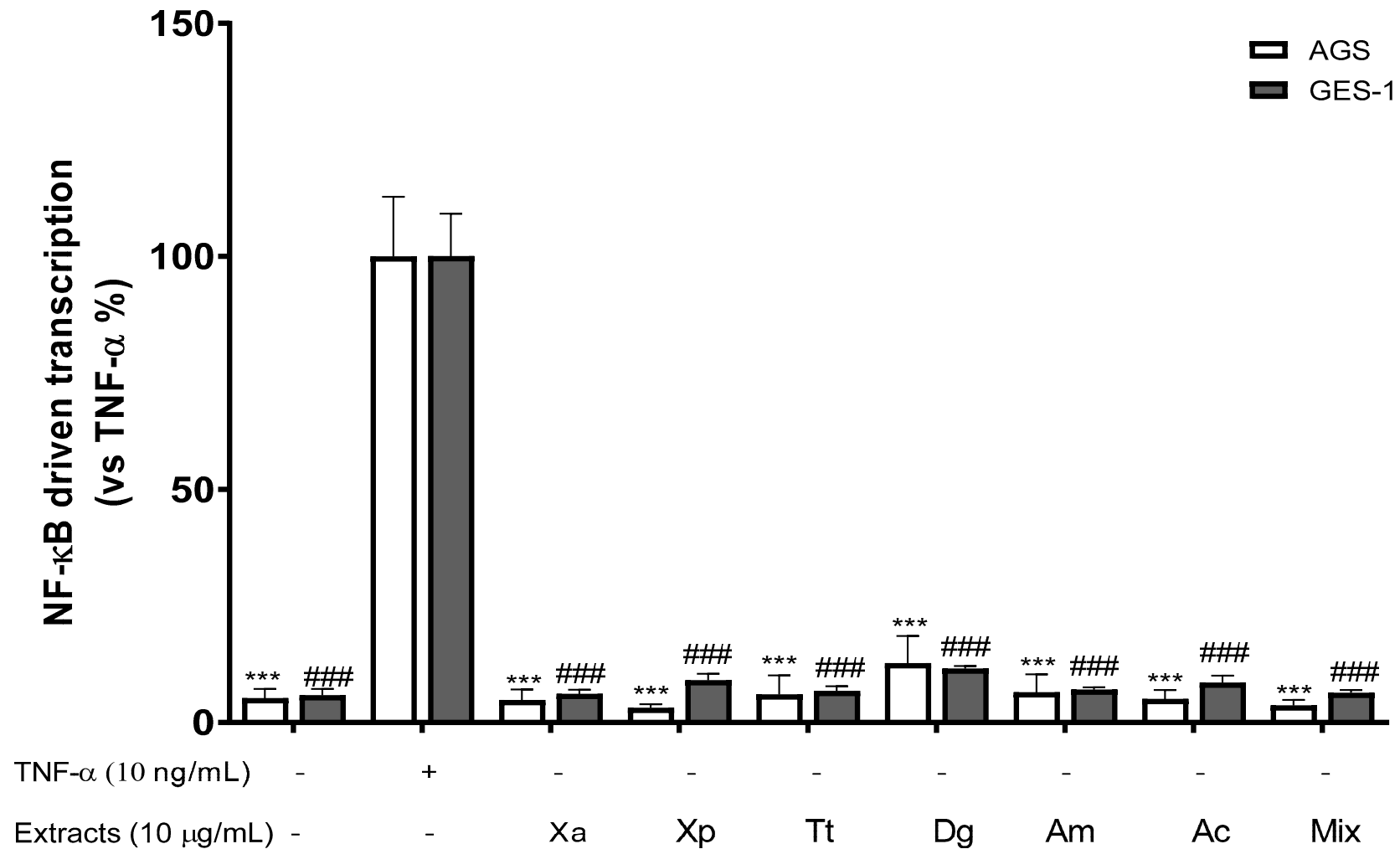


Figure S5. Effect of extracts in monotherapy and combination on the basal level of NF- κ B-driven transcription in non-stimulated human gastric adenocarcinoma (AGS) and gastric epithelial (GES-1) cells.



Data are expressed as percentages versus the stimulated control, which is arbitrarily set to 100%. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ in AGS cells and # $p < 0.05$, ## $p < 0.01$ and ### $p < 0.001$ in GES-1 cells.