

Supplemental material

Table S1. Percentage composition of the preliminary formulations.

Component	Gel 1	Gel ISO	Gel ISO2
IMQ	0.05	0.06	0.19
Alginate	0.95	0.43	0.43
CMChit	0.95	-	-
CaCl ₂	0.02	0.03	0.03
Propylene glycol	0.99	4.33	4.33
Water	97.05	93.10	92.98
Xanthan gum	-	0.87	0.87
Isostearic acid	-	1.17	1.17

Table S2. P values obtained from t-test analysis for IMQ amount retained and permeated across porcine skin for all the formulation prepared.

Formulation	Micelles	CMChit+A gel	A+X gel	X gel	A+X Film	A+X Film with backing	X Film no crosslinked	X Film no crosslinked with backing	X Film 120°C 20 min with backing
Micelles	-	0.001; 0.008	0.175; 0.020	0.796; 0.572	0.383; 0.226	0.028; 0.007	0.130; 0.012	0.063; 0.863	0.148; 0.001
CMChit+A gel	0.001; 0.008	-	0.087; 0.002	0.052; 0.021	0.115; 0.088	0.004; 0.085	0.085; 0.673	0.047; 0.008	0.001; 0.171
A+X gel	0.175; 0.020	0.087; 0.002	-	0.305; 0.180	0.813; 0.018	0.955; 0.001	0.918; 0.003	0.056; 0.026	0.035; 0.001
X gel	0.796; 0.572	0.052; 0.021	0.305; 0.180	-	0.433; 0.198	0.239; 0.045	0.271; 0.021	0.067; 0.639	0.537; 0.006
A+X Film	0.383; 0.226	0.115; 0.088	0.813; 0.018	0.433; 0.198	-	0.743; 0.356	0.744; 0.076	0.058; 0.201	0.089; 0.017
A+X Film with backing	0.028; 0.007	0.004; 0.085	0.955; 0.001	0.239; 0.045	0.743; 0.356	-	0.934; 0.086	0.055; 0.007	0.011; 0.003
X Film no crosslinked	0.130; 0.012	0.085; 0.673	0.918; 0.003	0.271; 0.021	0.744; 0.076	0.934; 0.086	-	0.055; 0.011	0.055; 0.011
X Film no crosslinked with backing	0.063; 0.863	0.047; 0.008	0.056; 0.026	0.067; 0.639	0.058; 0.201	0.055; 0.007	0.055; 0.011	-	0.033; 0.001
X Film 120°C 20 min with backing	0.148; 0.001	0.001; 0.171	0.035; 0.001	0.537; 0.006	0.089; 0.017	0.011; 0.003	0.027; 0.467	0.033; 0.001	-