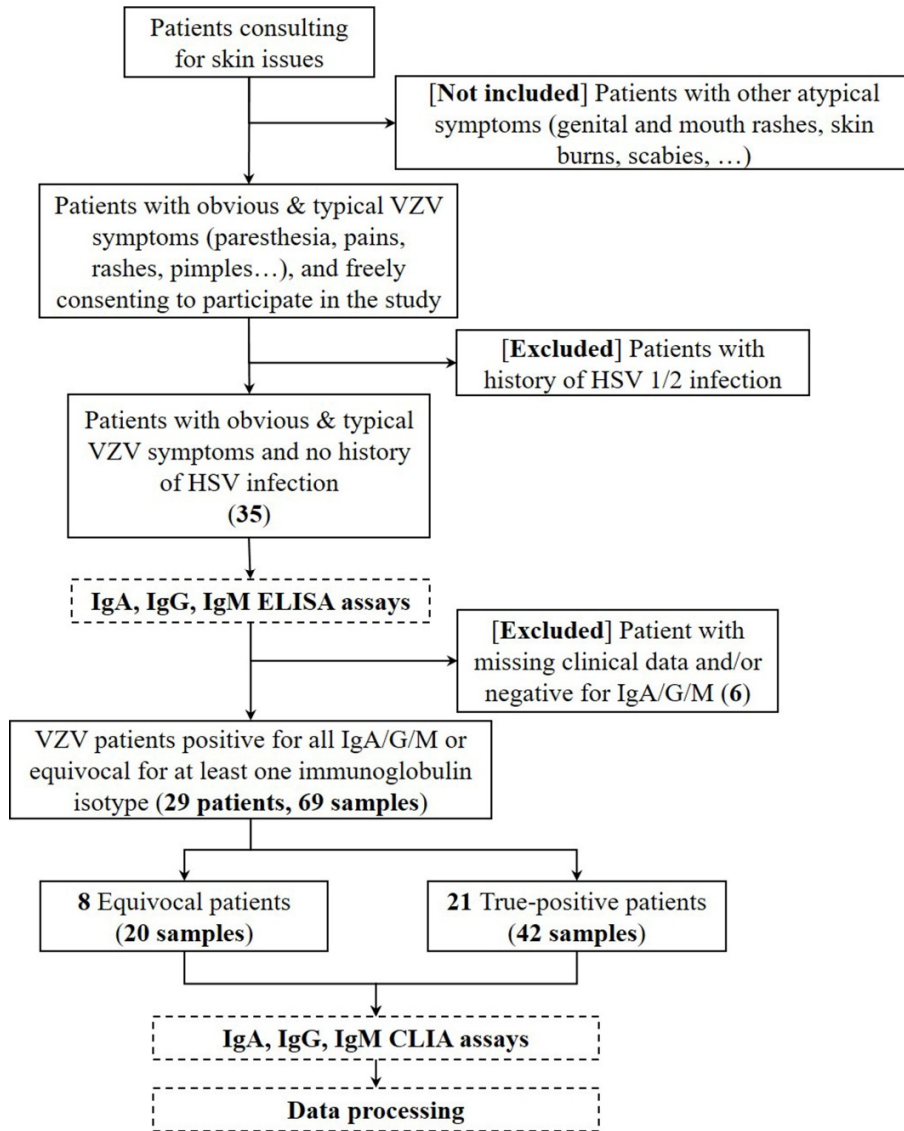


Supplementary data

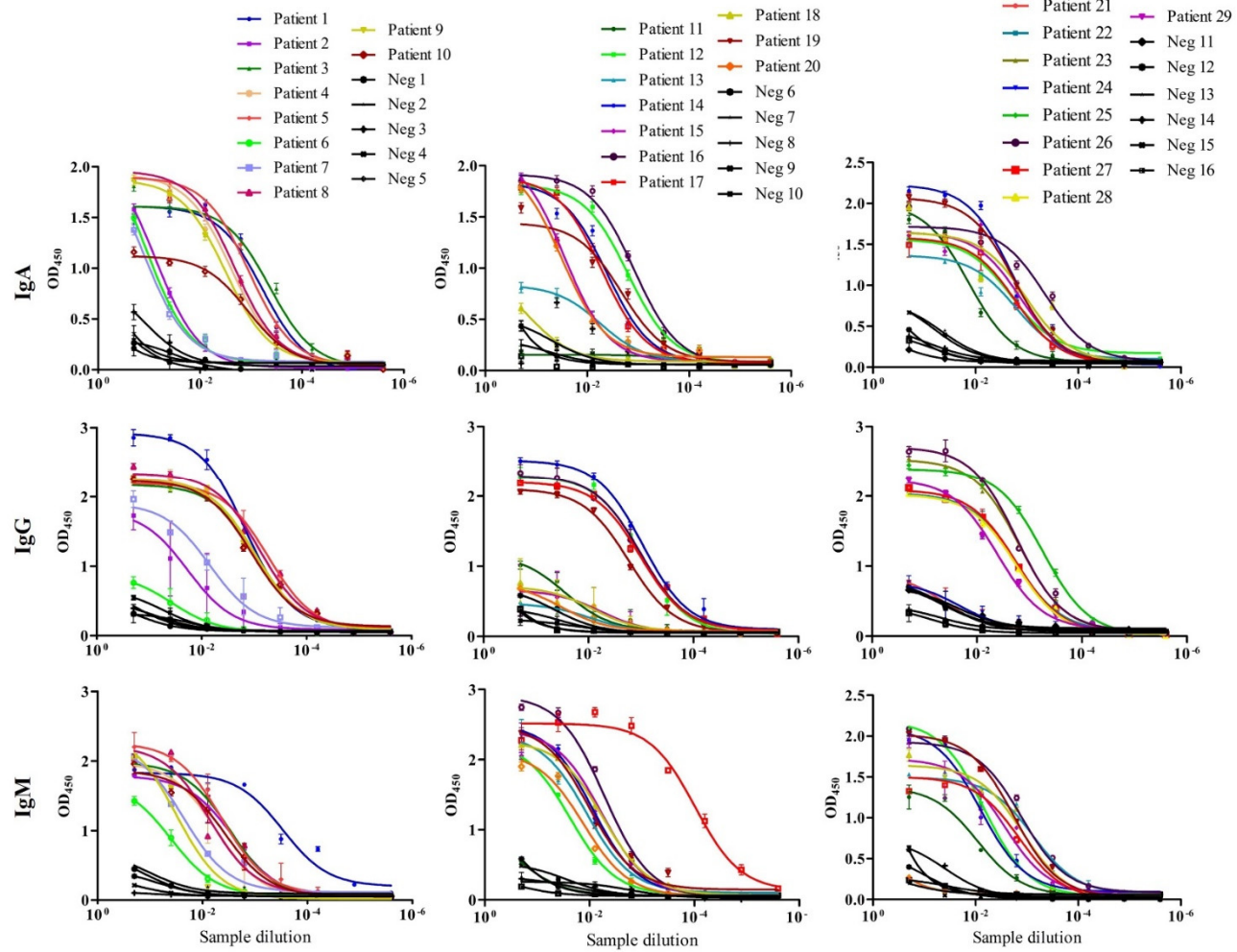


Supplementary Figure S1: Flow chart of patient inclusion and analyses. None of the retained VZV-patients had been vaccinated with VZV vaccine.

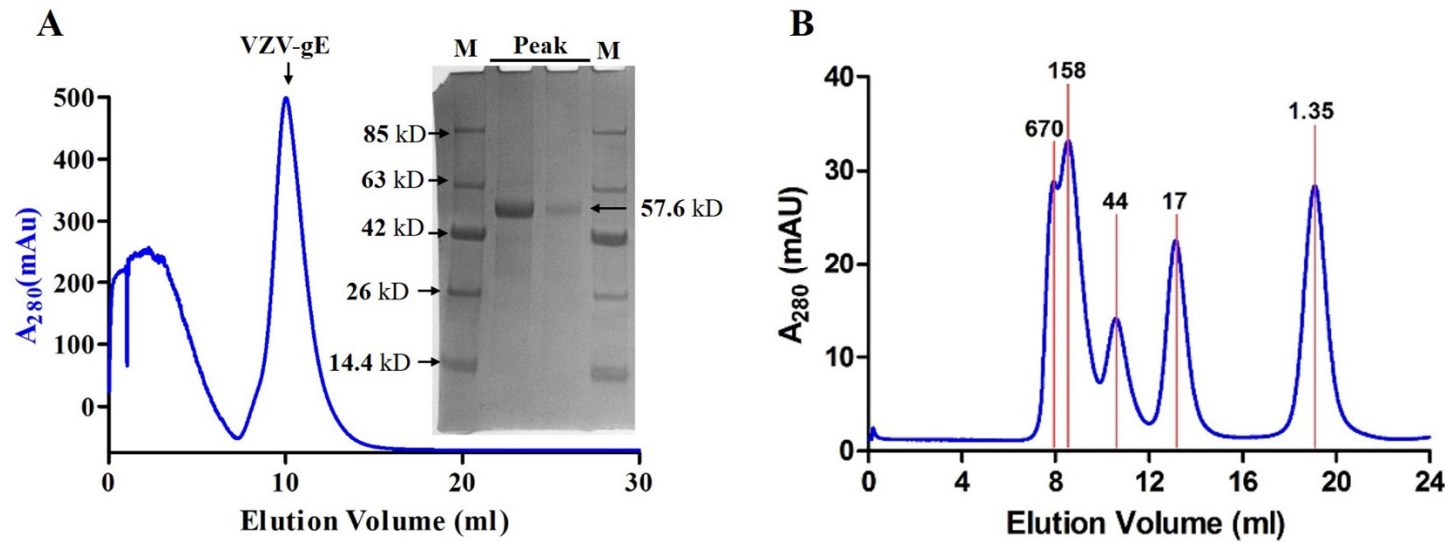
Supplementary Table S1: Epidemiological and clinical patient data

Nº	Sex	Age	Symp. onset	Symptoms	Organ transplant	Other infectious diseases
1	M	72	7	Fever and rashes, and discomfort for more than 7 days	no	—
2	F	37	4	4 days of lesions on upper left abdomen. 1 day of pain	no	no
3	M	79	6	Lesions on left upper limb and front chest wall for 6 days with pain	no	no
4	M	29	—		no	no
5	M	38	7	Head and neck pain for 7 days and lesions for 4 days	no	no
6	M	33	2	Redness and swelling of right eye with pain for 2 days	no	no
7	F	48	3	Headache for 3 days with redness of right eye frame for 1 day	no	no
8	M	35	5	Lesions on right lumbodorsal region with pain for 5 days	no	no
9	M	31	6	Redness and swelling around left frame for 6 days with aggravation for 2 days	no	no
10	F	63	6	Left parietal temporal rash with pain for 6 days	no	no
11	M	69	4	Left head and neck rash for 4 days	no	no
12	M	—	8	Left head and neck rash for 8 days	no	no
13	F	20	3	Rash on right eyelid with pain for 3 days	no	Hepatitis B
14	M	63	3	Right facial rash with pain for 3 days	no	no
15	M	26	2	Rash on left shoulder with pain for 2 days	no	no
16	F	65	15	Rash on right lower back with pain for 15 days	no	no
17	F	27	7	Fever for 1 week. lesions on left chest and back with pain for 5 days	no	no
18	M	79	14	Rash on right side of head with pain for 2 weeks	no	no
19	M	70	7	Rash on left shoulder, back, left upper limb for 1 week and pain for 3 days	no	no
20	M	73	2	Rash on left side of waist and abdomen for 2 days	no	Hepatitis B
21	M	38	15	Rash on right side of waist with pains	no	no
22	M	63	5	Chest and back rash with fever for 5 days	no	no
23	F	28	5	Right chest and back rash with pain for 5 days	no	no
24	M	48	2	Rash on left side back for 2 days	no	Hepatitis A, Hepatitis E
25	M	82	9	Neck rash 9 days	no	no
26	F	56	10	Left head pain for 10 days. left head and face rash for 8 days	no	no
27	F	70	5	Pain in left chest and back for 1 week and rash for 5 days	no	no
28	M	38	15	Fever and localized rashes	no	no
29	F	45	7	Rashes on left side of waist, abdomen and back for 5 days, fever for 7 days	no	no

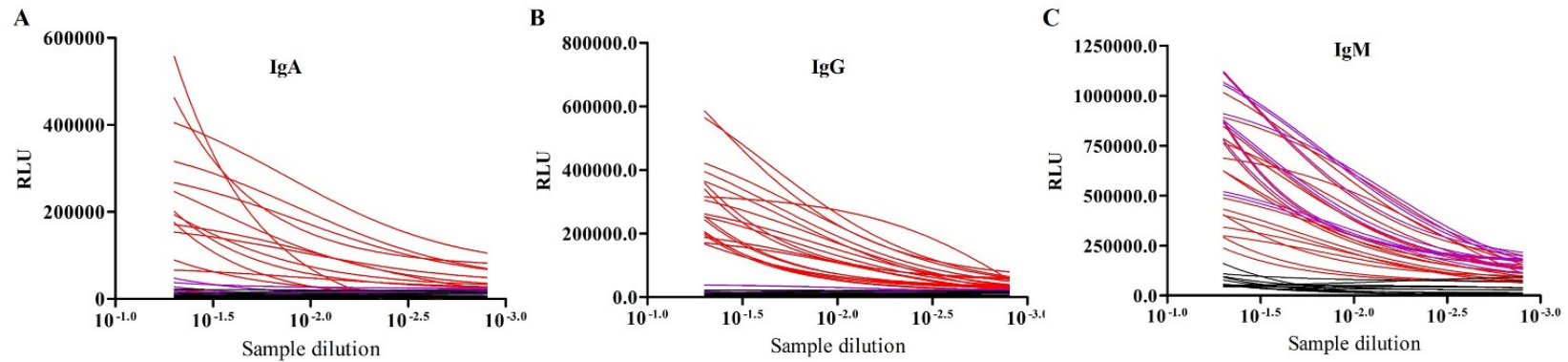
The sample from these patients were collecting at the visiting time, for this study. No patient had received VZV vaccine before the consulting time. Moreover, no skin diseases has been reported before by any of the patients.



Supplementary Figure S2. ELISA results of all the 29 included patients. All the patients sample were performed thrice, with 5-fold serial dilution from for each sample. All the negative controls are shown in black curves, while the patients are shown in colored curves.



Supplementary Figure S3. Purification of VZV-gE recombinant protein using baculovirus vector expression system (BVES). **A.** The recombinant protein was obtained from supernatant of Hi5 cell line culture, and purified. The pure protein was characterized through 10% SDS-PAGE based molecular weight (kDa) separation and determined using protein market (M). After staining with Coomassie blue dye, the gel was carefully washed and the purified band (57 kDa) was visualized on fluorescent light. **B.** A standard elution curve obtained from known molecular weight protein using the same size-exclusion chromatography (SEC) device was used to characterize the monomeric state of the purified VZV-gE protein.



Supplementary Figure S4. Validation of VZV-gE specific IgA (A), IgG (B), and IgM (C) detection based on CLIA approach. 29 included patient samples were randomly selected and 2-fold serially diluted (from 1/20) to assess the ability of the purified gE protein to detect IgG and IgM antibodies using automated CLIA. The relative light unit (RLU) obtained for all the patients were transform and fit using GraphPad Prism 5. The negative controls are shown in black curves, the ELISA based equivocal are colored in pink-purple, and the positive are colored in red. RLU: relative light unit. This validated the diagnostic approach.